

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

FIFTH ANNUAL REPORT

TO THE
GOVERNOR OF CALIFORNIA
BY THE
DIRECTOR OF PUBLIC WORKS

JANUARY, 1952

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

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BY THE
DIRECTOR OF PUBLIC WORKS

January, 1952



EARL WARREN
Governor

FRANK B. DURKEE
*Director of Public Works and
Chairman, California Highway Commission*

G. T. McCOY
*State Highway Engineer and
Chief of Division of Highways*

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DEPARTMENT OF PUBLIC WORKS

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

FRANK B. DURKEE, Director of Public Works

DIVISION OF HIGHWAYS

G. T. McCOY, Sacramento
State Highway Engineer and Chief of Division of Highways

HEADQUARTERS STAFF

Public Works Building, Sacramento

R. M. GILLIS ----- Deputy State Highway Engineer

OPERATIONS

EARL WITHYCOMBE ----- Assistant State Highway Engineer
 D. G. EVANS ----- Construction Engineer
 G. F. HELLESOE ----- Maintenance Engineer
 F. N. HVEEM ----- Materials and Research Engineer
 E. E. SORENSON ----- Equipment Engineer
 E. J. SALTINE ----- Principal Highway Engineer

ADMINISTRATION

RICHARD H. WILSON ----- Assistant State Highway Engineer
 H. C. McCARTY ----- Office Engineer
 H. B. LaFORGE ----- Engineer, County and Cooperative Projects
 L. V. CAMPBELL ----- Engineer, City and Cooperative Projects
 MILTON HARRIS ----- Service and Supply Engineer

PLANNING

J. W. VICKREY ----- Assistant State Highway Engineer
 J. C. WOMACK ----- Planning Engineer
 E. T. TELFORD ----- Design Engineer
 G. M. WEBB ----- Acting Traffic Engineer
 F. M. REYNOLDS ----- Engineer, Special Studies and Highway Planning Survey
 J. C. YOUNG ----- Principal Highway Engineer
 H. L. KILE ----- Budget Engineer

BRIDGES

F. W. PANHORST ----- Assistant State Highway Engineer
 STEWART MITCHELL ----- Bridge Design Engineer
 I. O. JAHLSTROM ----- Bridge Construction Engineer
 E. L. WALSH ----- Bridge Office Engineer
 R. R. ROWE ----- Bridge Research Engineer
 H. C. WOOD ----- San Francisco-Oakland Bay Bridge Engineer

PUBLIC RELATIONS AND PERSONNEL

CHAS. E. WAITE ----- Assistant State Highway Engineer
 J. P. MURPHY ----- Principal Highway Engineer
 S. H. LATHROP ----- Assistant Engineer—Personnel Management
 A. I. RIVETT ----- Coordinator of Traffic Safety Education

RIGHT OF WAY

FRANK C. BALFOUR	Chief Right of Way Agent
E. F. WAGNER	Deputy Chief Right of Way Agent
R. S. J. PIANEZZI	Assistant Chief Right of Way Agent, Administration
E. M. MACDONALD	Assistant Chief Right of Way Agent, Appraisals
G. S. PINGRY	Assistant Chief Right of Way Agent, Field Supervision, North

ACCOUNTING

E. R. HIGGINS	Comptroller
BERT SELLER	Assistant Comptroller
W. S. CULLY	Assistant Comptroller

DISTRICT ENGINEERS

<i>District</i>		<i>Office</i>
I.	A. M. NASH	Eureka
II.	J. W. TRASK	Redding
III.	C. H. WHITMORE	Marysville
IV.	JNO. H. SKEGGS, Assistant State Highway Engineer	San Francisco
	B. W. BOOKER, District Engineer	
	L. A. WEYMOUTH, District Engineer	
V.	E. J. L. PETERSON	San Luis Obispo
VI.	E. T. SCOTT	Fresno
VII.	P. O. HARDING, Assistant State Highway Engineer	Los Angeles
	W. F. FAHEY, District Engineer	
	M. E. CESSNA, District Engineer	
VIII.	S. W. LOWDEN	San Bernardino
IX.	A. S. HART	Bishop
X.	J. G. MEYER	Stockton
XI.	E. E. WALLACE	San Diego

STATE OF CALIFORNIA
CALIFORNIA HIGHWAY COMMISSION

C. H. PURCELL,* Chairman, Ex Officio	Sacramento
HOMER P. BROWN,† Placerville	Term expires January 15, 1951
F. WALTER SANDELIN, Ukiah	Term expires January 15, 1952
JAMES A. GUTHRIE, San Bernardino	Term expires January 15, 1953
CHESTER H. WARLOW, Fresno	Term expires January 15, 1953
HARRISON R. BAKER, Pasadena	Term expires January 15, 1954
CHARLES T. LEIGH, San Diego	Term expires January 15, 1955
R. C. KENNEDY, Sacramento	Secretary

* C. H. Purcell retired from his positions as Director of Public Works and ex officio member and Chairman of the California Highway Commission on July 31, 1951. Six weeks later, on September 7th, Mr. Purcell passed away at his home in Sacramento. Upon his appointment to the position of Director of Public Works, Frank E. Durkee, succeeding Mr. Purcell, automatically became Chairman, Ex Officio of the California Highway Commission.

† On October 26, 1951, Governor Warren accepted the resignation of Homer P. Brown as member of the California Highway Commission and on October 30, 1951, the Governor appointed H. Stephen Chase of Sacramento to the commission, his term to expire January 15, 1955.

CALENDAR OF MEETINGS
CALIFORNIA HIGHWAY COMMISSION

July 1, 1950 to June 30, 1951

July 26, 27, and 28, 1950	Sacramento
August 16, 17, and 18, 1950	Sacramento
September 20, 21, and 22, 1950	Sacramento
* September 23, 24, 25, 27, and 28, 1950	
October 25 and 26, 1950	San Francisco
November 15 and 16, 1950	Sacramento
December 13 and 14, 1950	Sacramento
† December 27, 1950	Los Angeles
January 17 and 18, 1951	Sacramento
February 14 and 15, 1951	Sacramento
March 21 and 22, 1951	Sacramento
April 18 and 19, 1951	Sacramento
May 16 and 17, 1951	Sacramento
June 19, 20, and 21, 1951	Sacramento

* Tour to determine highway needs.

† Inspection tour of Hollywood Freeway.

PAST MEMBERS OF THE CALIFORNIA HIGHWAY COMMISSION

Name	Residence	Date of appointment	Termination of membership
Burton A. Towne*	Lodi	Aug. 2, 1911	Resigned Jan. 14, 1914
Charles D. Blaney*	Saratoga	Aug. 2, 1911	Resigned Mar. 1, 1917
N. D. Darlington	Los Angeles	Aug. 2, 1911	Resigned Jan. 8, 1923
Charles F. Stern	Eureka	Jan. 15, 1914	Resigned Dec. 21, 1918
Henry J. Widenmann*	Vallejo	Mar. 1, 1917	Died Oct. 6, 1918
Charles A. Whitmore*	Visalia	Nov. 29, 1918	Resigned Jan. 8, 1923
Emmett Phillips*	Sacramento	Dec. 21, 1918	Died June 18, 1919
George C. Mansfield*	Oroville	June 24, 1919	Resigned Jan. 9, 1923
Harvey M. Toy*	San Francisco	Jan. 9, 1923	Resigned Jan. 3, 1927
Louis Everding*	Arcata	Jan. 9, 1923	Resigned Jan. 17, 1927
Nelson T. Edwards	Orange	Jan. 10, 1923	Resigned Jan. 3, 1927
Ralph W. Bull*	Eureka	Jan. 6, 1927	Resigned Jan. 6, 1931
J. P. Baumgartner*	Santa Ana	Jan. 6, 1927	Resigned Jan. 6, 1931
M. B. Harris*	Fresno	April 18, 1927	Resigned Jan. 6, 1931
Joseph N. Schenck	Los Angeles	Aug. 19, 1927	Resigned Jan. 6, 1931
Fred S. Moody*	San Francisco	Aug. 19, 1927	Resigned Jan. 6, 1931
Earl Lee Kelly	Redding	Jan. 6, 1931	Resigned Oct. 18, 1932
Frank A. Tetley*	Riverside	Jan. 6, 1931	Resigned July 31, 1935
Timothy A. Reardon	San Francisco	Jan. 6, 1931	Resigned May 7, 1936
Harry A. Hopkins	Taft	Jan. 6, 1931	Resigned Oct. 14, 1937
Philip A. Stanton*	Anaheim	Jan. 6, 1931	Resigned Mar. 3, 1939
Dr. W. W. Barham	Yreka	Dec. 20, 1932	Resigned May 21, 1935
Ray Ingels	Ukiah	May 21, 1935	Resigned Oct. 4, 1935
C. D. Hamilton*	Banning	Aug. 1, 1935	Died April 24, 1936
H. R. Judah	Santa Cruz	May 7, 1936	Resigned Oct. 5, 1937
Paul G. Jasper*	Fortuna	May 7, 1936	Resigned Mar. 3, 1939
William T. Hart*	Carlsbad	July 7, 1936	Resigned Mar. 3, 1939
Robert S. Redington	Los Angeles	Oct. 5, 1937	Resigned Jan. 27, 1939
Frank W. Clark	Los Angeles	Jan. 27, 1939	Resigned Mar. 10, 1939
Lawrence Barrett	San Francisco	Mar. 3, 1939	Resigned Jan. 11, 1943
Iener W. Nielsen	Fresno	Mar. 3, 1939	Resigned Jan. 11, 1943
Amerigo Bozzani	Los Angeles	Mar. 3, 1939	Resigned Jan. 11, 1943
Bert L. Vaughn	Jacumba	Mar. 3, 1939	Resigned Jan. 11, 1943
L. G. Hitchcock	Santa Rosa	Mar. 10, 1939	Resigned Jan. 11, 1943
Gordon H. Garland†	Sacramento	Jan. 11, 1943	Resigned Sept. 14, 1943
Mrs. Dora Shaw Heffner†	Sacramento	Jan. 11, 1943	Resigned Sept. 14, 1943
Miss Helen MacGregor†	Sacramento	Jan. 11, 1943	Resigned Sept. 14, 1943
Verne Scoggins†	Sacramento	Jan. 11, 1943	Resigned Sept. 14, 1943
William Sweigert†	Sacramento	Jan. 11, 1943	Resigned Sept. 14, 1943
C. Arnholt Smith	San Diego	Sept. 14, 1943	Resigned Jan. 1, 1949

* Deceased

† Member of the Interim Commission



CHARLES H. PURCELL
1883-1951

IN MEMORIAM

The State of California lost one of its most distinguished citizens and public servants and the engineering profession of the Nation one of its most brilliant members in the death, on September 7, 1951, of Charles Henry Purcell, former Director of Public Works and ex officio Chairman of the California Highway Commission.

Because of failing health, Mr. Purcell retired from his official positions on July 31, 1951, and six weeks later passed away at his home in Sacramento.

Mr. Purcell became a member of the Department of Public Works in 1928 when Governor C. C. Young appointed him to the position of State Highway Engineer. In January, 1943, Governor Warren named him Director of Public Works, and in September of that year he became ex officio member and Chairman of the California Highway Commission, in which capacities he served until his retirement.

Shortly after his appointment as State Highway Engineer, Mr. Purcell embarked upon that phase of his brilliant career which brought him world-wide acclaim as builder of the San Francisco-Oakland Bay Bridge, the world's largest bridge structure. Because of his tireless efforts in promotion of the bay crossing he was appointed in 1929 as Secretary of the Hoover-Young Commission which made the preliminary studies, and in 1931 became the chief engineer in charge of the design and construction of the bridge. In this capacity Mr. Purcell demonstrated his outstanding ability as an engineer and organizer when he surrounded himself with the Nation's best in engineering talent as consultants and assistants.

His administration of the California Division of Highways and the Department of Public Works equally displayed his organizational capabilities and professional integrity.

Mr. Purcell was born at North Bend, Nebraska, on January 27, 1883. He attended Stanford University and graduated in engineering from the University of Nebraska in 1906. In his earlier professional years he worked in South America and in western United States, serving in various capacities from resident engineer for the Union Pacific in Wyoming to district engineer for the U. S. Bureau of Public Roads with headquarters in Portland, Oregon, which position he left to become State Highway Engineer of California.

Mr. Purcell was an honorary member of the American Society of Civil Engineers and a recognized national authority on public highways; he was a member of the Executive Committee of the American Association of State Highway Officials; a representative of the United States on the Permanent International Commission of the Permanent International Association of Road Congresses; was one of 12 nationally known highway engineering experts serving on the Special Committee for the Consideration of Administrative and Design Policies for Highways; past President of the American Association of State Highway Officials; was

Executive Officer, California Commission for the 1939 Golden Gate International Exposition. In 1944, Mr. Purcell received the coveted George S. Bartlett Award for "outstanding contribution to highway progress." The Bartlett award is the top honor presented annually for achievement in the highway field. Selection of the recipient of the honor is made by the three-member Board of Award composed of the Presidents of the American Association of State Highway Officials, the American Road Builders' Association and the Highway Research Board of the National Research Council.

Mr. Purcell held honorary degrees of Doctor of Laws from the University of California, and Doctor of Engineering, University of Nebraska.

With all of Mr. Purcell's drive toward highway achievement, he held not only the deep respect of his co-workers and assistants for his integrity as a man and an engineer, but also their sincere affection.



PORTION OF ARROYO SECO PARKWAY which connects Pasadena with central Los Angeles



YUCCA BLOOMS IN CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

FIFTH ANNUAL REPORT TO THE GOVERNOR ON
THE ACTIVITIES OF THE DIVISION
OF HIGHWAYS

For the Year July 1, 1950, to June 30, 1951

HONORABLE EARL WARREN
Governor, State of California

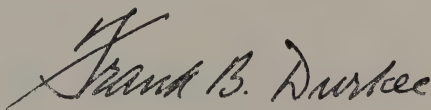
DEAR GOVERNOR WARREN: In accordance with the provisions of Section 143 of the Streets and Highways Code, as amended, it is my pleasure to submit to you the Fifth Annual Report of the Division of Highways, Department of Public Works, which presents a review of progress in state highway development under the direction of the late C. H. Purcell during the Fiscal Year July 1, 1950, to June 30, 1951.

The report, as prepared and submitted to me by the State Highway Engineer, deals with the work and problems of the Division of Highways during the year and discusses in detail the more important phases of operations, administration, planning, bridges and right of way acquisition.

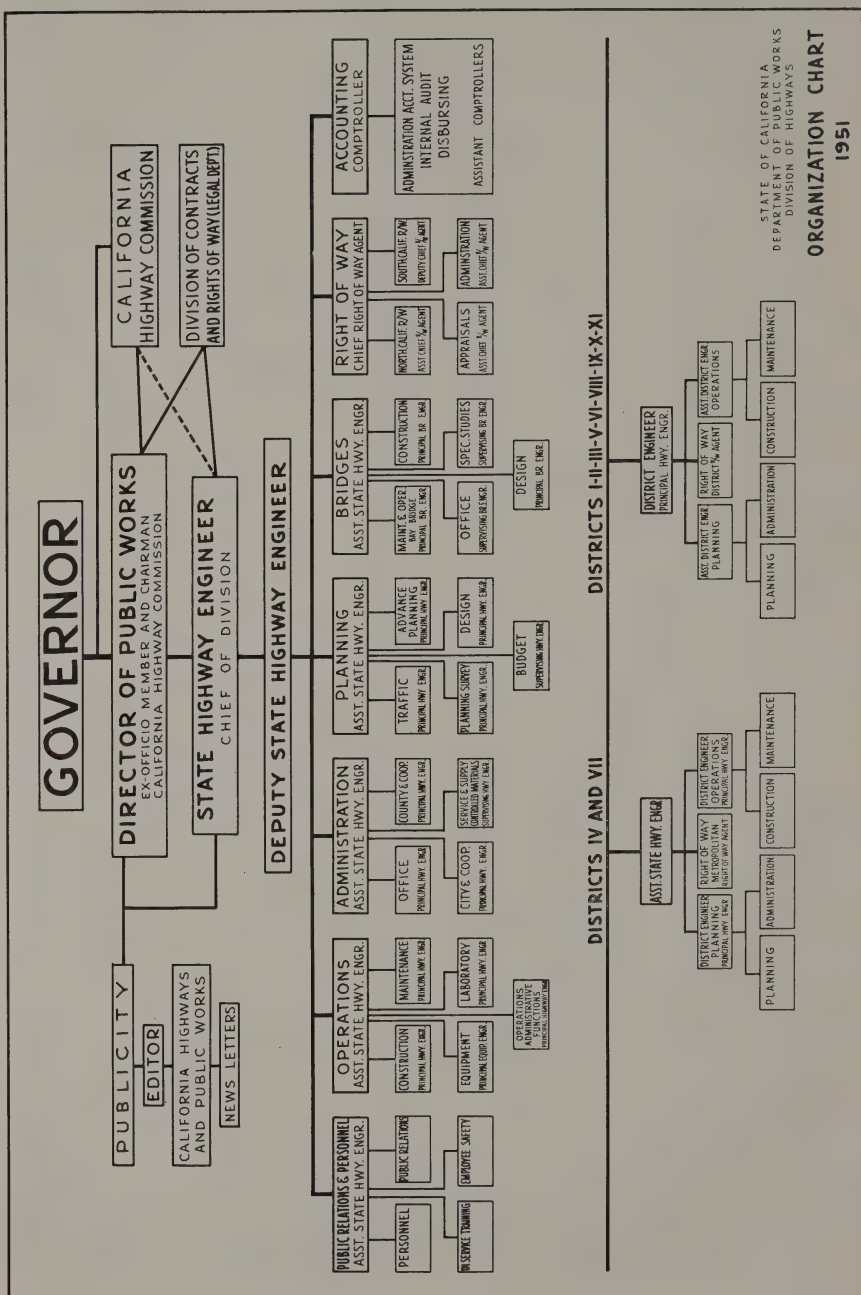
Progress in meeting state highway problems is briefed in the personal report of the State Highway Engineer and the detail of the Division's work may be found in the several sections given over to each of the functions listed above.

The report also includes complete financial and statistical data relating to the administration of the Division of Highways.

Respectfully,

A handwritten signature in dark ink, reading "Frank B. Durkee". The signature is written in a cursive, flowing style with a large initial "F".

Director of Public Works



FIFTH ANNUAL REPORT
BY THE
STATE HIGHWAY ENGINEER

July 1, 1950 to June 30, 1951

HONORABLE FRANK B. DURKEE
Director of Public Works
State of California

SIR: In compliance with the directive of statutory provisions it is my pleasure to submit to you, for your approval and transmittal to Governor Warren, a complete and detailed report on the work, progress, and accomplishments of the Division of Highways during the Fiscal Year from July 1, 1950, to June 30, 1951.

During the year the Division of Highways construction program for improvement and correction of critical deficiencies on the State Highway System has been carried along at a high level comparable to that attained in the years since the Collier-Burns Act became effective in 1947.

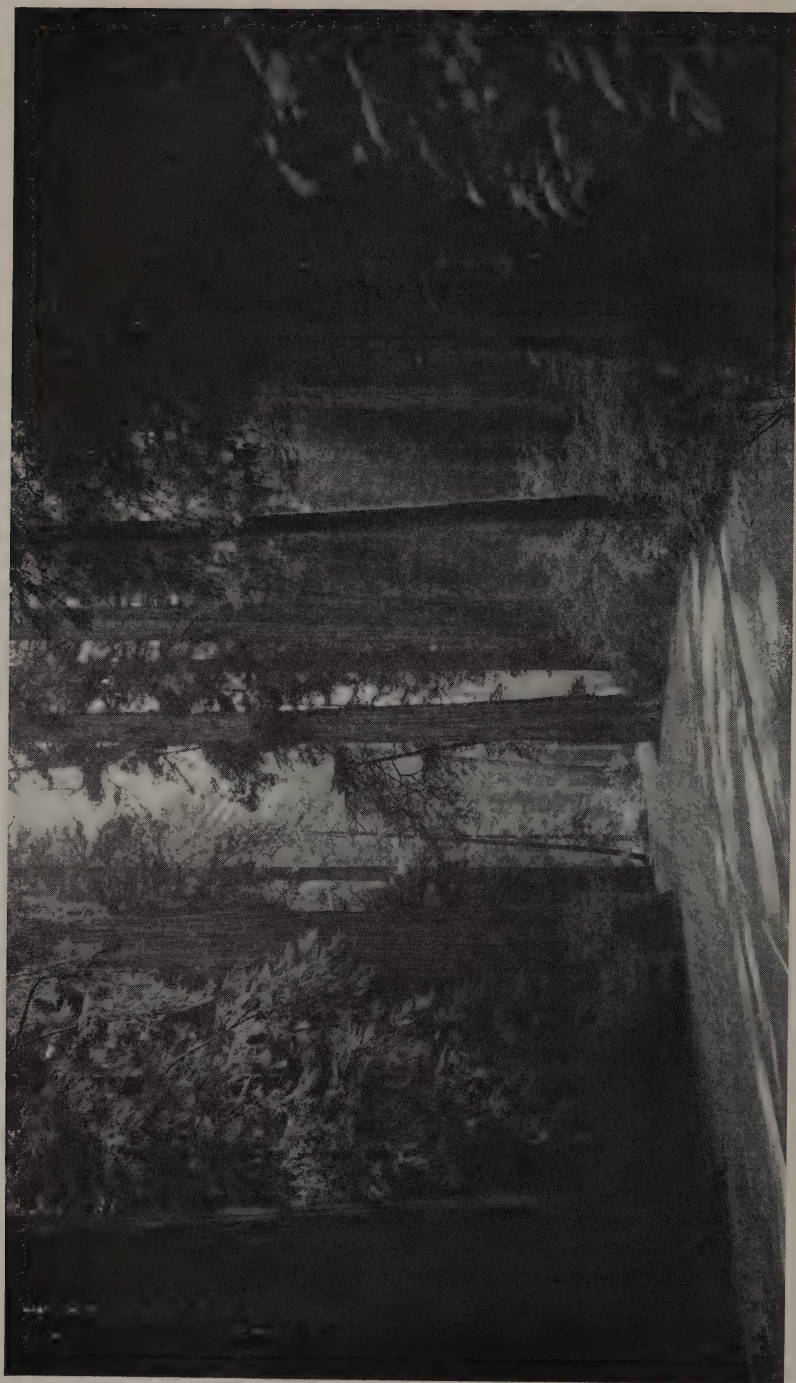
Between July 1, 1950, and June 30, 1951, the Division of Highways let a total of 366 contracts the construction value of which amounted to \$88,691,000, including construction engineering but not including right of way. Expenditures for right of way acquisition and right of way clearance totaled \$32,934,500 for the fiscal year.

The total of \$88,691,000 in contracts awarded during the year includes \$74,861,600 for improvement to State highways, \$7,149,700 for Federal-aid Secondary contracts for improvement to county roads located on the Federal-aid Secondary Highway System; and \$6,679,700 for contracts financed with maintenance funds, Federal and State emergency repair funds and for work for other governmental agencies.

The amount of \$74,861,600 representing the construction value of contracts awarded for improvement to the State Highway System, is comprised of a total of \$63,308,500 in contracts financed from the Highway Commission's budget for 1950-51 Fiscal Year and \$11,553,100 in contracts financed from the 1951-52 Fiscal Year budget which were awarded between April 1 and June 30, 1951, under the provision of the Collier-Burns Act which permits award of contracts on or after April 1st prior to the beginning of the fiscal year in which such contracts are to be financed.

The total of \$88,691,000 in highway construction under administration of the department included improvement of 683.6 miles of highway and construction of 115 bridges and grade separations.

Alleviation of traffic congestion on the State Highway System continues to be the most serious problem confronting the Division of Highways. During the decade from 1940 to 1950 California's population rose from 6,907,000 to 10,586,000, an increase of 53 percent. Motor vehicles on the highways increased 69 percent, from 2,990,000 in 1940 to 5,043,000 in 1950. The traffic congestion created on the highways and streets of the



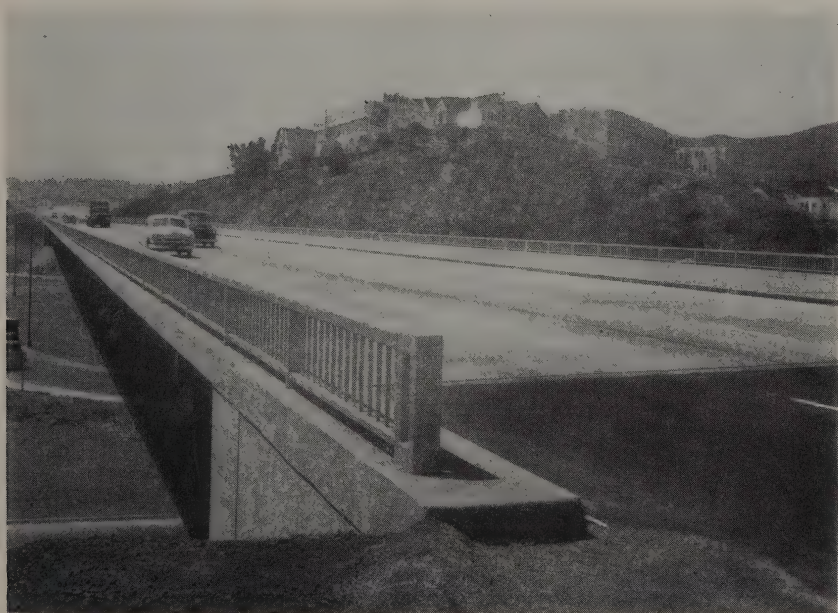
REDWOOD TREES on the Redwood Highway in Del Norte County

State by these increases is of such magnitude as to largely offset benefits of the expanded highway development programs of the past several years.

Nevertheless, the Division of Highways has pushed its construction programs to the full extent of funds available, emphasizing the development of freeway construction in the urban areas and expressway construction on the main arterials connecting centers of population. During the past fiscal year such construction has been carried forward on the Bayshore Freeway in San Francisco; the Eastshore Freeway from Oakland southerly; the Hollywood, Santa Ana, Ramona, and Los Angeles River Freeways, all in the metropolitan area of Los Angeles; US 40 between San Francisco and Sacramento; US 50 in Alameda County; on US 99 in the San Joaquin Valley; US 101 in Santa Barbara, San Luis Obispo, and Monterey Counties; and US 101 at Oceanside and south of San Diego.

Of the \$88,691,000 in total contracts awarded during the year, the construction value of contracts for freeway and expressway development amounted to \$56,784,400. It is thought that this figure clearly indicates the vigor with which the Division of Highways is attacking the problem of traffic congestion on state highways in urban areas and on the principal intercity arterials.

At the present time there are 1,073 miles of divided state highways of four or more lanes completed or under construction, of which 744 miles have been placed underway since the close of the war. These mileages include 90 miles of full freeways, without crossings or left turns at grade.



ARMY STREET UNDERCROSSING on Bayshore Freeway in the City of San Francisco



AERIAL VIEW LOOKING WESTERLY from Civic Center toward Four-Level Structure over junction of Arroyo Seco Parkway and Harbor Freeway

As an index to the size of the Division of Highways construction programs, the accompanying chart, showing the number and value of going contracts on the first of each month since passage of the Collier-Burns Act, is of considerable interest.

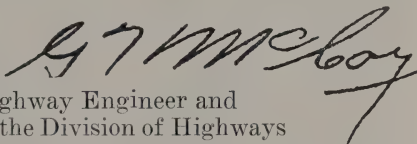
On the following pages of this report will be found detailed discussions of the last year's work under the functions of Operations, Administration, Planning, Bridges, Rights of Way, Public Relations, Accounting, and Legal activities. These reports on the several phases of state highway work indicate the progress being made throughout the department.

Highway contracts awarded for the year July 1, 1950, to June 30, 1951, segregated by types and mileage, are shown on the accompanying tabulation on page 26. The tabulation on page 27 shows the total miles in the State Highway System by types and by rural and urban highways.

Tabulation of average contract prices for major items of construction over the years appears in Appendix "D" at the end of the report. Studies in construction cost trends and their effect upon state highway construction are discussed in the Administration Section under the heading of the "California Highway Construction Cost Index." The data in Appendix "D" are correlated to the prices used in preparation of the Cost Index.

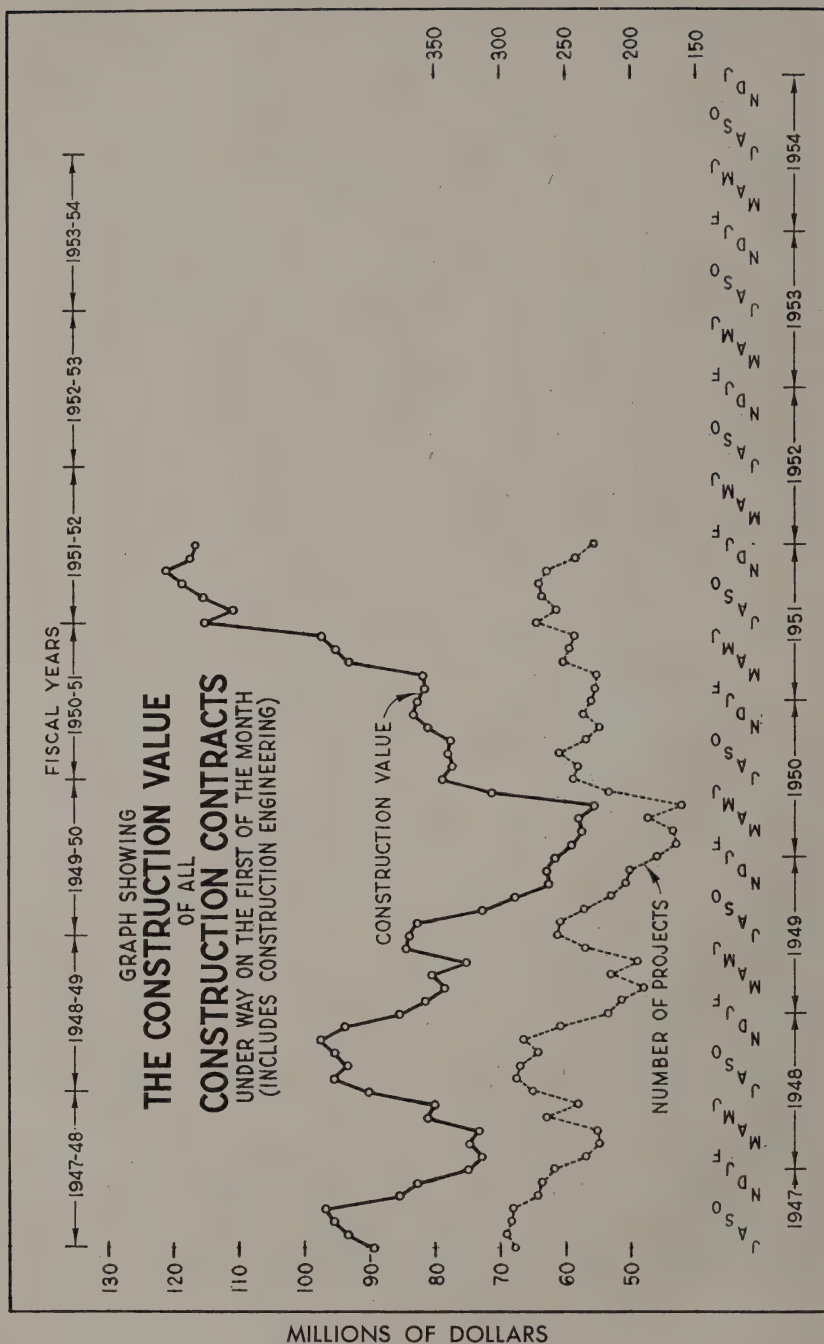
In the several appendices following the text of the report are given important accounting and contract statistics.

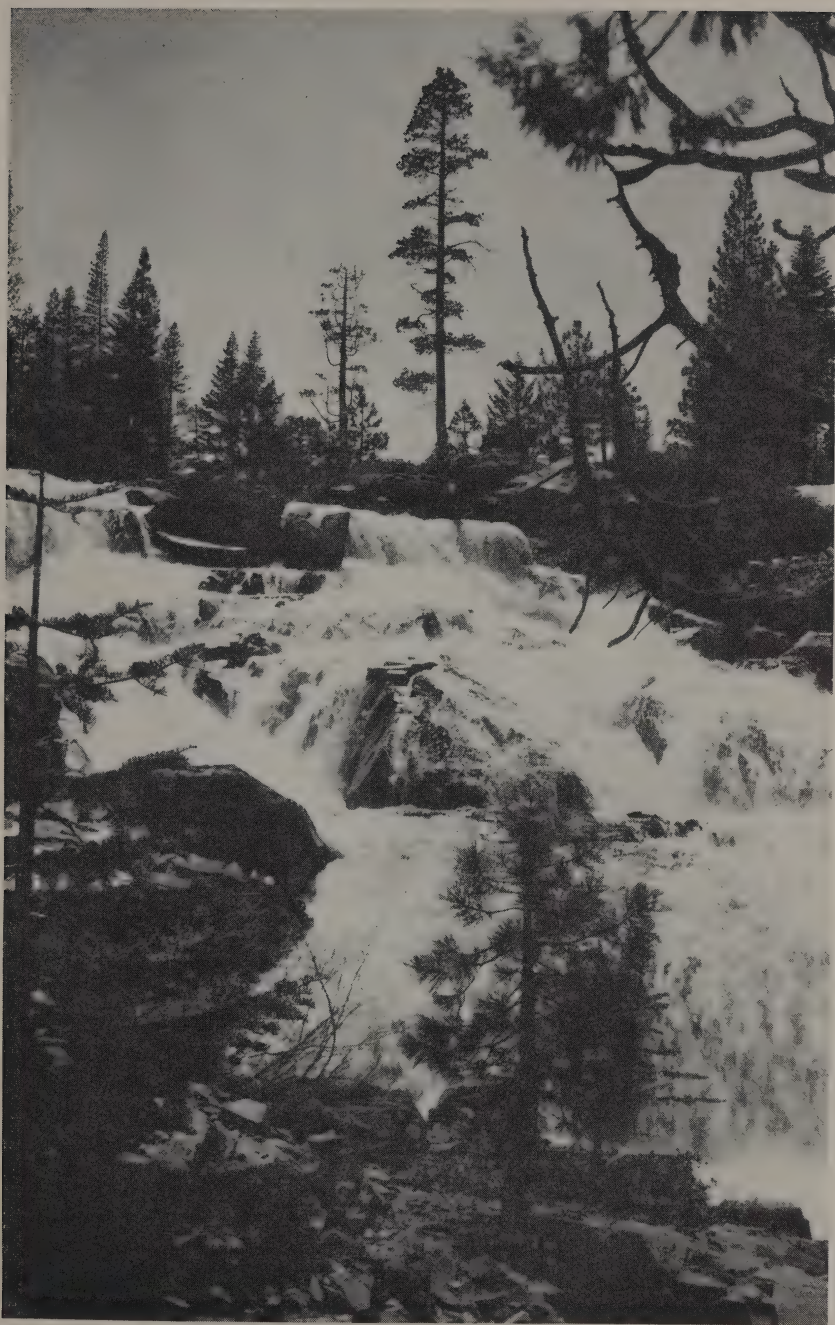
Respectfully submitted,

A handwritten signature in dark ink, appearing to read "G. T. McElroy". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent. The ink is dark and the background is a light, slightly textured paper.

State Highway Engineer and
Chief of the Division of Highways

NUMBER OF PROJECTS





FALLS ABOVE FALLEN LEAF LAKE in El Dorado County

CONTRACTS AWARDED BETWEEN JULY 1, 1950 AND JUNE 30, 1951

State Highway System		
<i>Number of contracts</i>	<i>Type</i>	<i>Miles</i>
18	Portland Cement Concrete.....	54.7
2	Asphalt Concrete.....	1.1
94	Plant mixed and road mixed surfacing.....	371.7
11	Bituminous surface treatment.....	41.9
4	Seal Coat.....	56.4
3	Grading.....	4.0
63	Traffic signals and lights.....	—
77	Bridges.....	—
42	Miscellaneous.....	—
314	Totals.....	529.8
Not on State Highway System		
COUNTY ROADS FEDERAL AID SECONDARY		
25	Plant mixed and road mixed surfacing.....	125.1
1	Bituminous surface treatment.....	5.0
1	Seal coat.....	1.8
7	Grading.....	21.3
11	Bridges.....	—
1	Miscellaneous.....	—
46	Totals.....	153.2
STATE INSTITUTIONS		
1	Plant mixed and road mixed surfacing.....	—
STATE PARKS		
1	Plant mixed and road mixed surfacing.....	0.6
1	Bituminous surface treatment.....	—
3	Bridges.....	—
5	Totals.....	0.6

MILEAGE BY TYPES OF STATE HIGHWAYS
(Including Totals for Urban and Rural)
June 30, 1951

TYPE	NORTH			SOUTH			TOTALS		
	Outside cities	Inside cities	Total	Outside cities	Inside cities	Total	Outside cities	Inside cities	Grand total
Portland cement concrete.....	664,981	99,311	764,292	684,537	217,750	882,287	1,329,518	317,061	1,646,579
Asphalt concrete.....	367,174	153,204	520,378	329,206	206,537	535,743	696,338	359,801	1,056,139
Dual and combination types ¹	131,249	43,145	174,392	124,379	42,170	166,549	386,758	139,313	526,071
Bituminous macadam.....	351,452	46,087	397,539	331,327	139,069	470,396	366,759	70,152	436,911
Plant mix gravel.....	1,632,220	82,769	1,714,989	1,631,214	129,621	1,760,835	3,963,134	205,382	4,168,516
Road mix gravel.....	827,144	13,562	840,706	1,548,566	13,020	1,561,586	2,476,692	29,382	2,506,074
Oiled gravel.....	1,358,745	13,562	1,372,307	50,444	1,371	51,815	1,388,792	14,538	1,403,330
Gravel.....	8,780	0,132	8,912	1,086,085	6,572	1,092,657	2,196,460	0,132	2,200,592
Oiled earth.....	1,110,595	4,014	1,114,609	66,694	6,572	73,266	2,662,615	10,586	2,673,191
Earth.....	196,961	195,961	392,922	31,094	6,572	37,666	91,478	19,867	111,345
Bridges.....	60,404	73,694	134,098	188,712	32,366	221,078	214,812	55,556	270,368
Unconstructed road.....	56,100	23,190	79,290						
Totals.....	6,844,588	469,721	7,314,309	5,922,762	749,042	6,671,804	12,767,350	1,218,763	13,986,113
Totals—constructed road.....	6,788,483	446,531	7,235,019	5,764,050	716,676	6,480,726	12,552,538	1,163,207	13,715,745

¹ Dual and combination types consist of two or more parallel types of surfacing.

NOTE: This table does not include non-add mileage such as frontage roads, connections, etc.



AERIAL VIEW OF RECENTLY WIDENED RIDGE ROUTE (U. S. 99) in Los Angeles County. With completion of similar widening in progress through Weldon Canyon this route will be continuous four-lane divided highway from Los Angeles to McFarland north of Bakersfield.

OPERATIONS

In the California state highway organization the functions of Construction, Maintenance, Materials and Research, and Equipment are administered by the Assistant State Highway Engineer, Operations. Following are the reports on each of these four functions for the fiscal year ending June 30, 1951.

In the fall of 1950, the office handling service agreements, labor relations and prevailing wage rates was transferred to Operations, and a brief report of these activities is also included under the heading of Operations, Administrative Functions.

CONSTRUCTION

Due to unavoidable changes in engineering personnel at Headquarters caused by retirements, the Construction Department has the unique distinction of having had three construction engineers between July 1, 1950, and June 30, 1951; Mr. Earl Withycombe occupying the position until mid-September, followed by Mr. F. N. Hveem from that time until May 31, 1951, when Mr. D. G. Evans the present construction engineer assumed the position. Other changes in personnel have been necessary in order to carry on the field and office work required by an exceptionally busy construction season.

Riding qualities of pavements continue to be one of the main concerns of the construction engineers throughout the Division. A survey during the fiscal year showed that, in general, a noticeable improvement in smoothness has been made on all types of surfaces compared with that of previous years.

Construction Practice

Grading—Contractors continue to show a preference for the scraper type earth-moving equipment; four-wheel pneumatic-tired tractor-drawn scraper units, or "jeeps" are becoming increasingly popular. Bid prices for earthwork involving rock are rising much faster than scraper work. The reasons appear to be the high cost of labor involved in drilling and blasting and the difficulties and attendant high costs of moving the heavy power equipment to and from the projects. The latter operation is an expensive procedure nowadays.

There is a tendency to use the heavier type of both pneumatic and tamping rollers in an attempt to increase the efficiency of embankment compaction. Methods resulting in uniform distribution and mixing of water throughout the embankment are receiving increased attention.

Pavement Bases and Subgrades—The improvement of base materials by the addition of Portland cement is becoming common practice throughout the State. In general, three types of cement treatment are employed whether the base materials are road-mixed or plant-mixed. The first type



WIDENING PIRU GORGE ON U. S. 99 in Los Angeles County required large-scale construction operations. Above is view of the rugged gorge and on opposite page, the top of a mountain is blown to bits by a gigantic blast.



employs sufficient cement to insure a minimum compressive strength of the treated base material which is then assigned a definite value in the structural design. The second type is generally known as cement-treated subgrade and is employed as an erosion resistant layer beneath Portland cement concrete pavements. The third type contains a low percentage of cement and may be used either to improve the resistance value of low grade materials; to guard against chance inclusion of pockets of inferior material in locally produced aggregates; or to provide a working table by consolidating the underlying loose material, such as sand or gravel.

Bituminous Surfaces—As in the past it has been necessary to recondition many of the older sections of traffic-worn pavement by the application of bituminous pavement blankets.

This work is done in either of three ways, dependent on the condition of the old base and surfacing:

(1) By placing a contact blanket consisting of a 1½-inch to 3-inch layer of new surfacing directly on the old.

(2) Similar to No. 1, with the addition of a layer of granular material, either with or without cement treatment, placed on the old pavement.

(3) By scarifying the old base and surfacing, mixing with cement and possibly additional base material, recompacting and then laying the new bituminous blanket.

Plant-mixed surfacing continues to be almost universally used in preference to asphalt concrete in California.



SUBGRADE CONSTRUCTION in connection with paving operations on Hollywood Freeway in Los Angeles. Western Avenue Overcrossing in background.



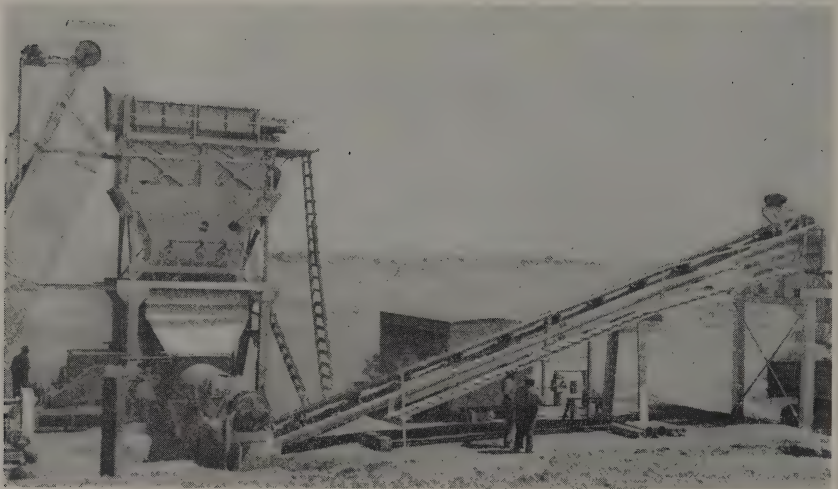
PAVING OPERATIONS ON HOLLYWOOD FREEWAY in downtown Los Angeles

Road-mixed surfacing is usually specified on small projects in relatively isolated locations, but even here a road-mixing machine is often used.

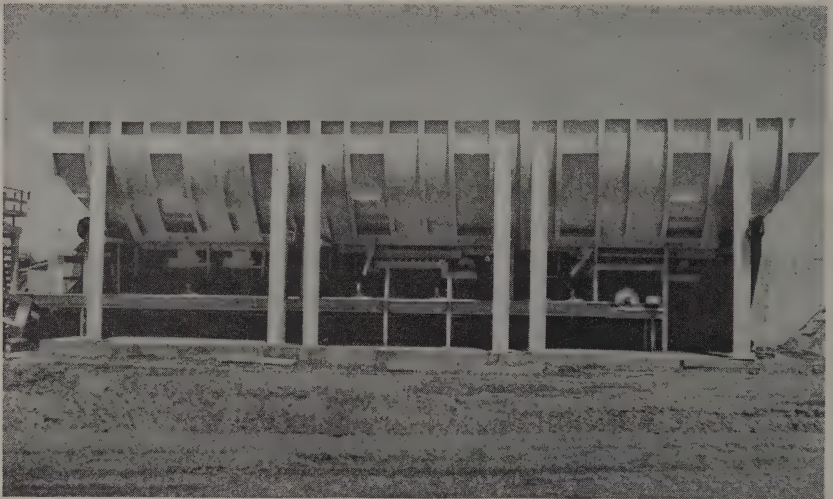
The continuous mixing principle which was introduced several years ago is still being employed on central mixing plants for plant-mixed surfacing. Difficulties in sampling and volume control in this type of plant are being overcome, and its use is expected to become more widespread.

Portland Cement Concrete Pavements—With the successful elimination of expansion joints, attention is now being focused on improved design of transverse weakened plane joints in Portland cement concrete pavements. Experimental sections are being constructed with spacings of the latter type joints varying from 15 feet to 60 feet and with joints placed at a skew of $2\frac{1}{2}$ feet to 4 feet in 12 feet.

The weighted average roughness index for 41 miles of Portland cement concrete pavements completed under nine contracts during the 1950 calendar year was 6.3 inches per mile, varying from a low of 5.2 to a high of 7.3. These figures compare favorably with any so far obtained for this type of pavement. Similarly, the average daily production of 636 cubic yards per day obtained on these nine contracts is greater than any figure so far published by the Division. On one contract the average daily production was a record 1,040 cubic yards.



CONTINUOUS MIXING PLANT with positive controls used on a bituminous surfacing contract in Yolo County. The combination belt and gate feeders supplying this plant are shown below.





CONSTRUCTION OPERATIONS at Hollywood Drive Undercrossing on Hollywood Freeway in Los Angeles, showing forms, steel placement and concrete. Prior to placing fill over structure.



LOOKING WESTERLY ALONG LINE OF HOLLYWOOD FREEWAY in Los Angeles showing construction of fill over Hollywood Drive Undercrossing



COMBINATION EXCAVATOR AND LOADER used on grading contract
in Los Angeles County

Project Reports, Preliminary Reports, Plans and Specifications

Project and preliminary reports, plans and specifications for proposed construction projects on state and federal secondary roads are carefully checked and reviewed to ensure that uniform practice based on up-to-date construction experience is incorporated into the projects. The Construction and Design Departments work closely with the specification writers in this regard, and after the project is let to contract the results in the field are carefully observed by the Construction Staff engineers.

Prison Labor Projects

Three prison road camps were operated during the fiscal year. The camps are located as follows: Camp 36 in Trinity County on the Trinity Lateral between Redding and Arcata; Camp 37 on the Angeles Crest Highway in Los Angeles County; and Camp 39 in Modoc County on the Alturas-Lakeview Highway.

During the year additional grading was completed by Camp 36 in Trinity County and a light asphalt surfacing was placed on another three miles of improved road. Rough grading operations at Camp 37 in Los Angeles County have progressed to Dawson Saddle and a light oil surfacing was placed for 2.5 miles easterly from Islip Saddle. Camp 39 in Modoc County has completed all grading on the northerly 18 miles of the route to the Oregon state line, an oil surfacing placed, and the road opened to traffic. Rough grading is in progress south of Davis Creek.

The following tabulation shows camp locations and inmate quotas as of June 30, 1951.

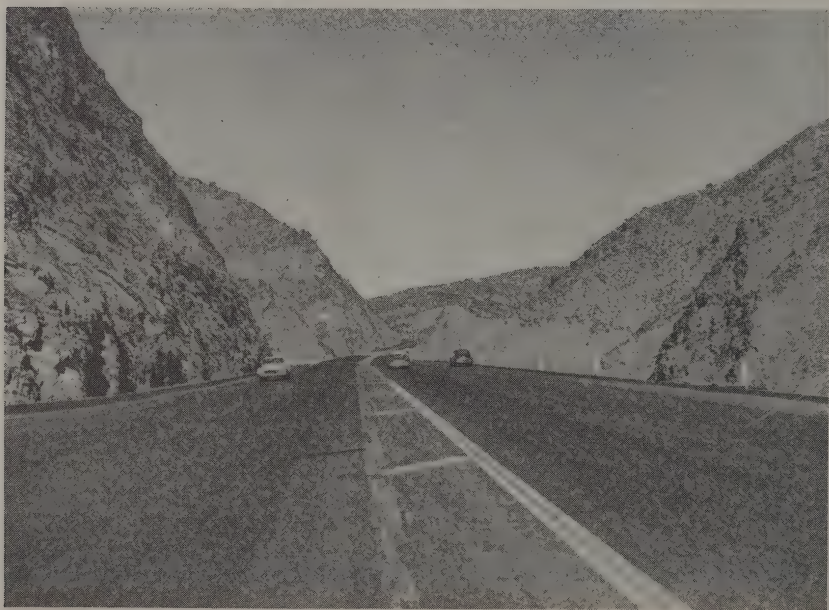
<i>Camp No.</i>	<i>Road</i>	<i>Locations</i>	<i>Inmate quota</i>	<i>Number as of 6-30-51</i>
36	I-Tri-20-C, D	Burnt Ranch -----	60	55
37	VII-LA-61-C, D	Cedar Springs -----	110	105
39	II-Mod-73-A, B	Sugar Hill -----	50	49
Totals -----			220	209



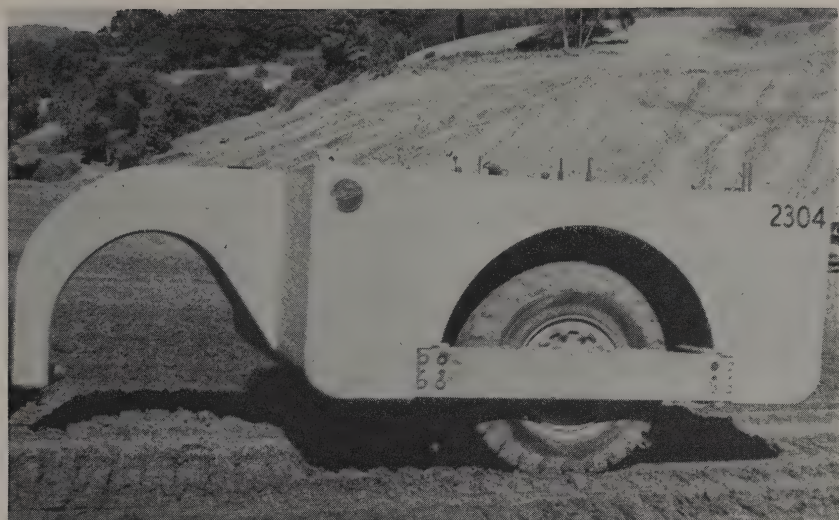
SPREADING EQUIPMENT used by contractor to lay plant-mixed leveling course on construction project in San Diego County



DISSIPATING BASIN on Gorman Creek near Gorman, Los Angeles County



NEW DIVIDED FOUR-LANE HIGHWAY on Ridge Route (U. S. 99)
in Los Angeles County



FORTY-TON PNEUMATIC COMPACTOR used on heavy grading contract
in Santa Clara County



REPAIRING FLOOD DAMAGE to State Highway along Kern River about 15 to
20 miles east of Bakersfield in Kern County



CLEANING UP ROCK SLIDE at Emerald Bay on State Sign Route 89
in El Dorado County

MAINTENANCE

Conditions affecting maintenance of California state highways for the year ending June 30, 1951, were generally favorable except for heavy damage in certain areas as a result of floods from October through early December, 1950. Damage during this period was the most severe that has been experienced since the winter of 1937-38.

The October storm was confined mostly to the Smith River area east of Crescent City on US 199; the damage consisted of undermining and washing out of protection work and fill slopes. The damage which occurred during the November and December storm period was confined mainly to routes in the southern portion of the Sacramento Valley, the eastern portion of the San Joaquin Valley, and to routes crossing the Sierra from Bakersfield north to Downieville. Conditions during the November-December storm were so severe that on November 21st, the Governor issued a proclamation declaring a state of emergency.

The damaged sections were restored sufficiently by maintenance forces to care for traffic. Complete restoration required protection work to prevent or at least reduce the probability of recurrence of damage at the same locations. This work has been let to contract and is now under way. It is estimated that the cost of repair, including emergency work already done and protection work, will approximate \$6,000,000. Financing of this work will be from state and federal emergency relief funds, as discussed further under Federal Aid in the Administration Section.

The winter season was mild, particularly in the southern portion of the State. Very little snow fell during March and April. The total cost of snow removal and sanding icy pavements for the 1950-51 season was about 70 percent of the cost for the previous year. Damage to road surfaces due to frost and heavy traffic was not excessive.

The completion of several freeway projects made it necessary to increase the crews assigned to erosion control and landscape maintenance. It was necessary, also, to add men to crews on maintenance of lights and traffic signals. Except for such additions, only routine changes were made in the maintenance forces.

Maintenance Stations

Improvement at maintenance stations during the year was limited to a total of about \$250,000. Of this amount, some \$158,000 was allocated for buildings and incidental work at Central Maintenance Station in Los Angeles County in District VII. A new cottage was constructed at the Westmoreland Station in Imperial County and minor improvements were authorized at various locations throughout the State.

Replacement and repair work was authorized in a total amount of about \$87,000.

Funds for radio equipment and installation, which are financed from reserves, budgeted for buildings and plants, were allocated late in the 1949-50 Fiscal Year for work in Districts I, II, III, VII, VIII and IX, and the work which has been carried on continuously during the year is described later in this report.



MOUNT LASSEN in Shasta County. The only active volcano in the United States.

Snow Removal and Sanding Icy Pavement

With the exception of Districts VII and VIII, the expenditure for snow removal and sanding icy pavement was substantially lower this year than during the 1949-50 season. The lesser cost was occasioned in part by precipitation in the form of rain instead of snow during the October-through-December period. Snowfall during March and April was exceptionally light. Savings realized in snow removal costs were, however, more than offset by excessive damage caused by the heavy rains. Even during a mild winter, there is a heavy expense as it is necessary always to prepare for a normal year and the cost of standby forces and equipment is a considerable item. A comparison, by districts, of expenditures during 1949-50 and 1950-51 for snow removal is shown in the following tabulation:

EXPENDITURES FOR SNOW REMOVAL AND SANDING ICY PAVEMENT		
<i>District</i>	<i>1949-50</i>	<i>1950-51</i>
I -----	\$63,463	\$16,956
II -----	397,892	274,742
III -----	382,070	246,014
IV -----	13,294	7,060
V -----	-----	-----
VI -----	63,941	52,320
VII -----	47,948	45,423
VIII -----	80,453	88,349
IX -----	106,623	73,421
X -----	80,425	55,516
XI -----	5,924	8,194
Totals -----	\$1,242,033	\$867,995

The mildness of the last winter season is further reflected in the following comparison of opening dates for certain roads in the higher elevations:

<i>Name</i>	<i>Elevation</i>	<i>Opening date</i>	
		<i>1949-50</i>	<i>1950-51</i>
Lassen Volcanic National Monument			
within park -----	8,500	6-26-50	6-15-51
Meeks Bay to Mays -----	6,300±	5-23-50	4-13-51
Luther Pass -----	7,700	5-15-50	4-23-51
Carson Pass -----	8,573	6- 2-50	5-25-51
Ebbetts Pass -----	8,800	6- 9-50	5-25-51
Sonora Pass -----	9,624	5-27-50	5-25-51
Tioga Pass -----	9,941	5-30-50	5-25-51

Major Slides and Storm Damage Repair

As previously stated, damage to California state highways during the 1950-51 winter season was the greatest since the record high of 1937-38. The over-all cost of repairs will approximate \$6,000,000, of which \$5,560,000 is for repair in Districts, I, II, III, IV, VI, IX, and X in the northern portion of the State. In contrast is the \$8,000,000 expenditure in 1937-38, when the cost in the southern section of the State was approximately \$5,750,000.

Damage caused by the unusually heavy rains was minimized by reason of the fact that they occurred during the normally mild months of October, November, and December, instead of during the usual March

and April period when the mountain snow pack is substantial and the valley sections highly saturated.

The following tabulation shows a comparison of the 1949-50 and 1950-51 expenditures from funds provided for storm damage repair in the various districts:

EXPENDITURES FROM MAINTENANCE FUNDS (Exclusive of General Expense or Overhead) for Removal of Slides and Repair of Storm Damage.		
District	1949-50	1950-51
I	\$352,623	\$501,143
II	146,078	186,730
III	48,719	224,786
IV	162,834	423,186
V	88,234	83,982
VI	24,992	226,044
VII	297,816	208,626
VIII	142,168	87,859
IX	1,567	59,627
X	32,237	337,198
XI	9,982	15,359
Totals	\$1,307,250	\$2,354,540

These amounts represent largely the cost of emergency work to keep the highways open or to restore damaged sections sufficiently to allow use by traffic. Complete restoration and cost of protection work is being financed from other than maintenance funds.

Repair of Traveled Way and Shoulders

In order to preserve the 14,000 miles of California's state highways, it is necessary to program restoration treatment on about 3,000 miles of the system each year. The work performed under this annual program



DRILLING HOLES IN PAVEMENT with hydro drill rig
preparatory to subsealing



SUBSEALING PAVEMENT near Vallejo in Solano County

includes reprocessing oil surfacing, application of road-mixed and plant-mixed blankets of one-inch maximum thickness, seal coats, base restoration, and subsealing under Portland cement concrete pavements. During the season just past, approximately 3,337 miles of traveled way and shoulders were thus rehabilitated at a field cost of about \$3,810,000.

Asphalt Subsealing and Joint Sealing Concrete Pavements

The program of asphalt subsealing and filling joints in concrete pavements was continued during the year. Subsealing, which is mentioned above under repair of the traveled way, was carried out by maintenance forces using both Maintenance and Construction funds allocated as follows:

<i>District</i>	<i>Maintenance funds</i>	<i>Construction funds</i>	<i>Total</i>
III -----	\$4,500	\$6,200	\$10,700
IV -----	76,700	61,300	138,000
V -----	36,000	---	36,000
VII -----	20,600	43,700	64,300
X -----	36,000	---	36,000
	<u>\$173,800</u>	<u>\$111,200</u>	<u>\$285,000</u>

The total cost of this type of work for the last six years approximates \$1,214,000.

Use of cold-poured material, asphalt latex emulsion, to fill joints in Portland cement concrete pavement was continued in two districts. A

contract covering a total of 42.3 miles was completed at a cost of \$40,000, which is about \$945 per mile, or 8.5 cents per lineal foot of joint.

Bridge Repair and Maintenance

The Assistant State Highway Engineer, Bridges is responsible for inspection of all bridges. Recommendations concerning repairs to be undertaken or load or speed restrictions to be imposed are submitted to the Maintenance Engineer and work is carried out by the maintenance forces in accordance with such recommendations. A total of \$651,000 was allocated for upkeep and repair of bridges during the year, of which \$345,000 was for painting which is generally performed under contract.

Maintenance of State Highways in Cities

The policy of authorizing cities to perform maintenance work on state highways within their corporate limits was continued during the period under review. In general, work delegated to the smaller cities was limited to sweeping and cleaning. Full responsibility for maintenance was delegated to the larger cities which are organized to carry out the work, except for freeways which are maintained by state forces. The expenditure for maintenance of state highways in cities, exclusive of general expense items, was as follows:

Work by city forces	\$1,527,567
Work by state forces	1,514,669
Total	\$3,042,236
Average cost per mile	\$2,669

The expenditure as shown represents charges incurred by city forces for June, 1950. There is always a lag in processing city schedules; such charges for June, 1951, will appear in the 1951-52 Fiscal Year accounts.

Warning and Directional Signs

The cost of installation and maintenance of official highway signs was approximately \$250,000 for the fiscal year. Maintenance forces installed a total of 23,727 new signs, which cost \$185,012; \$54,000 of this total was for new sections of highways and freeways where revision or entire new installations were required. The signing crews relocated or re-erected some 10,772 signs; repaired, straightened, and cleaned some 48,794 signs, including the painting of 42,200 sign posts. Some 16,000 signs which were either damaged or obsolete were replaced. Assuming a total of 210,000 signs on the State Highway System, it was necessary to replace 7.6 percent during the year. On this basis, an average service life of 13 years for signs is indicated. The use of porcelain enamel for all permanent sign installations has been continued.

Maintenance of Trees, Landscaped Areas, and Erosion Control

The care of roadside vegetation and plantings is a continuing part of the maintenance program.

The spraying or cultivation of a strip adjacent to the shoulders is carried out each year in pasture and forested areas to reduce the hazard from fires. Control of noxious weeds is mandatory in most areas. In several

counties, control work on state highways is handled by county authorities at state expense. The expense of caring for landscaped areas, particularly on sections of freeways, is increasing constantly. While equipment is used wherever it is economical to do so, there will always be a large amount of hand labor required on this work. The main increase in maintenance forces during the year was for this work.

The field cost of the various items of work for the 1950-51 Fiscal Year was as follows:

Fire hazard control	\$165,608
Noxious weed control	67,885
Care of landscaping	563,455
Care of trees	255,044
Erosion control	17,400
 Total	 \$1,069,392

Traffic Striping and Pavement Markings

Materials normally used in state specifications for traffic line paint are no longer available due to government restrictions. It has been necessary, therefore, to revise the specifications for traffic paint and to use materials available locally. As a result, the traffic lines now being placed are not giving the same degree of wear as those placed under normal specifications. The cost for traffic paint has been substantially the same as the previous years. Allotments for traffic striping and pavement markings during the year, including work on state highways within cities, were in a total amount of \$638,696.



VIEW OF STEEL PEDESTAL PIERS AND GIRDERS of undercrossing which carries Bayshore Freeway over Army Street in San Francisco



PLATFORM TOWER on truck used for servicing illuminating fixtures
(platform in raised position)



"THE ELEPHANT TRUNK" large size suction cleaner used experimentally
for roadside cleanup

During the last three months of the fiscal year, experiments were carried on to develop a new type of traffic paint containing "Parlon," which is a derivative of rubber. The results obtained were very promising and the supply of paint now being purchased includes this material.

The use of glass beads embedded in the traffic paint to add to the night-time visibility of the traffic line has been continued.

Traffic Signals and Highway Lighting

Records as of June 30, 1951, show a total of 1908 intersections on the State Highway System where traffic signals have been installed. Some 921 of these installations are maintained by state forces and the remainder are maintained by cities. Some 3,642 lights also are maintained by the State.

Traffic signal installations on the highway system are being made at the rate of approximately 10 new intersections per month. Numerous lighting installations are made at intersections and in connection with distribution structures constructed on freeways. With the steady increases in signal and lighting installations it is necessary to periodically expand the forces and equipment required for the maintenance of these facilities.

The cost of maintaining traffic signals which serve state highway and city street or county road traffic jointly is divided between the Division of Highways and the local authority. The cost of work performed by city authorities is not segregated. An expenditure of \$404,962 was made in direct field charges by state forces during the year for maintenance of these facilities. The effect of the increase in number of installations on maintenance is shown by the following comparison for a three-year period:

<i>Fiscal year</i>	<i>Direct maintenance cost</i>
1948-49	\$239,076
1949-50	343,329
1950-51	404,962

Radio Communication

The installation of a modern high frequency FM radio system has been accomplished during the 1950-51 Fiscal Year in Districts I, II, III, VII, VIII, IX, and a portion of District VI. This work was financed from an allocation of some \$195,250 authorized at the end of the 1949-50 Fiscal Year, as well as from balances remaining in previous authorizations.

Radio survey and installation work is presently under way in Districts IV, V, X, XI, and the remainder of District VI. It is estimated that completion of this work will be accomplished about July 1, 1952, thereby effecting the basic installations of state-wide highway radio communication.

At the present time, there are in operation 52 base stations, 16 fixed relay stations, 14 control stations, and 258 mobile units. By July 1, 1952, it is estimated there will be 80 base stations, 29 fixed relay stations, 22 control stations and 450 mobile units. The completed radio communication system will represent a total expenditure of approximately \$725,000.



Typical MOBILE RADIO INSTALLATION on pick-up truck



Typical construction of MOUNTAIN TOP RADIO INSTALLATION at White Mountain, Inyo County, elevation 11,000

Outdoor Advertising

The administration of the Outdoor Advertising Act has been carried out on the same basis as in the past, being financed entirely from revenue received from licenses and permits. The comparative records for the past four years are as follows:

NUMBER OF ADVERTISING OPERATORS LICENSED DURING EACH FISCAL YEAR

1947-48	780
1948-49	786
1949-50	789
1950-51	750

NUMBER OF SIGN PERMITS ISSUED AND GROSS RECEIPTS DURING THE PAST FOUR FISCAL YEARS

	<i>Signs</i>	<i>Structures</i>	<i>Gross receipts</i>
1947-48	421	23,969	\$55,367.80
1948-49	477	28,343	62,258.54
1949-50	603	29,817	64,588.27
1950-51	497	30,387	61,676.73

Permits

There has been no change in the practice of handling permits relating to movement of oversize and overweight loads or for encroachments within the highway right of way.



EXPRESSWAY DEVELOPMENT ON U. S. 99 in San Bernardino County between Redlands and Beaumont

There was a considerable increase in the number of transportation permits issued as compared to the two previous years:

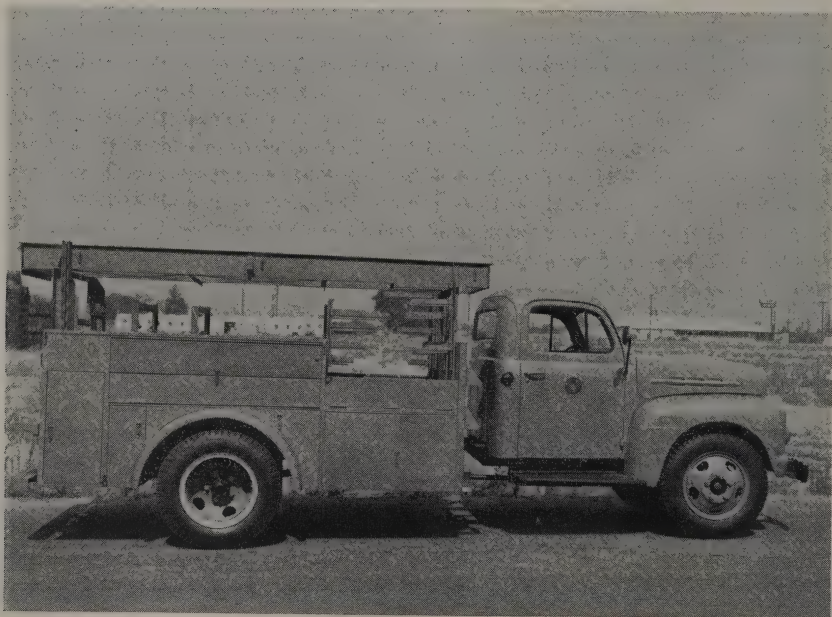
	<i>Number of permits issued</i>		
	<i>1948-49</i>	<i>1949-50</i>	<i>1950-51</i>
Transportation permits -----	26,456	32,239	41,285
Encroachment permits -----	15,199	14,826	13,917
Totals -----	41,655	47,065	55,202

War Damage Claims

Final payment was received this year from the Federal Government for war damage claims filed under provisions of the Defense Highway Act of 1941. The status of these claims is as follows:

Total amount of claims filed -----	\$2,288,571.15
Final payment -----	1,658,259.73
Disallowance for betterment and other ineligible items -----	630,311.42

This payment represents a return of 72.46 percent on the total amount of the claims filed. As there was a certain amount of improvement work included in carrying out some of the repair, it is felt that the federal authorities were very fair in their consideration of these claims.



Truck with SPECIAL BODY for transporting signs. Built in Headquarters Shop.

MATERIALS AND RESEARCH

The Materials and Research Department has continued its activities in the research and development field as well as in the routine control of materials. As in the past, the laboratory has worked in conjunction with the districts and other Headquarters departments and with outside agencies in order to establish the best use of materials in the building and operation of highways. The volume of work done is in keeping with the over-all output of the Division. Long-time development and research projects have been continued and new investigations have been started. Continuing the trend of the past several years, nearly 150,000 materials tests and analyses were made during the year.

Aggregate, Soils and Foundation Section

Foundation investigations were conducted on a number of projects involving slides, highway relocations, and material sources; and of building sites for the Division of Architecture. Considerable research work was done to determine the merits of different types of samplers for obtaining undisturbed samples. Research is also in progress on sand and gravel filter materials to determine the most efficient and economical type for pervious backfill.

Geological studies were made at a number of locations including material sites, tunnel locations and roadway cuts. A new 12-channel seismograph has been used for geophysical surveys to determine the presence of hidden masses of stone at quarry sites, and to investigate highway relocations and embankment foundations. Work is in progress on the compilation of a comprehensive index of aggregate and material sources throughout the State.

A total of 11,516 lineal feet of horizontal drains were installed during the year at a number of locations involving roadway slipouts and slides. The Orinda Slide on Route 75 in Contra Costa County was one of the more serious slides treated by horizontal drains. One of these drains produced a record flow of 80,000 gallons per day. A recently purchased horizontal drill of new design promises to effect a reduction in the cost of horizontal drain installation.

Bituminous Section

In addition to the large number of routine tests performed on bituminous materials a considerable number of special investigations were carried out.

Under the direction of Headquarters Laboratory, eight of the 11 highway districts were equipped with mechanical compactors and stabilometers during the year. By supplying the district laboratories with the equipment necessary to perform routine tests, a great saving in time will be effected to the district construction forces in securing control test results. Studies of the durability and curing characteristics of bituminous products are being continued with attempts being made to develop simplified test methods suitable for control work. Cooperative test control programs are being carried out by the oil producers and the Materials Laboratory in order to secure information on the degree of reproducibility of specification test methods. The department is also actively engaged in testing bituminous mixes in cooperation with the Triaxial Institute.



LARGE SLIDE NEAR ORINDA on State Sign Route 24 in Contra Costa County. Above shows magnitude of the slide shortly after constructing temporary roadway around its base, and, on opposite page, most of the unstable material has been removed and horizontal drains are being installed. Highway at base of slide restored.



An experimental pavement section was constructed with a bituminous plant-mixed surfacing containing a small amount of powdered rubber. Long time observations of its performance are to be made by this department.

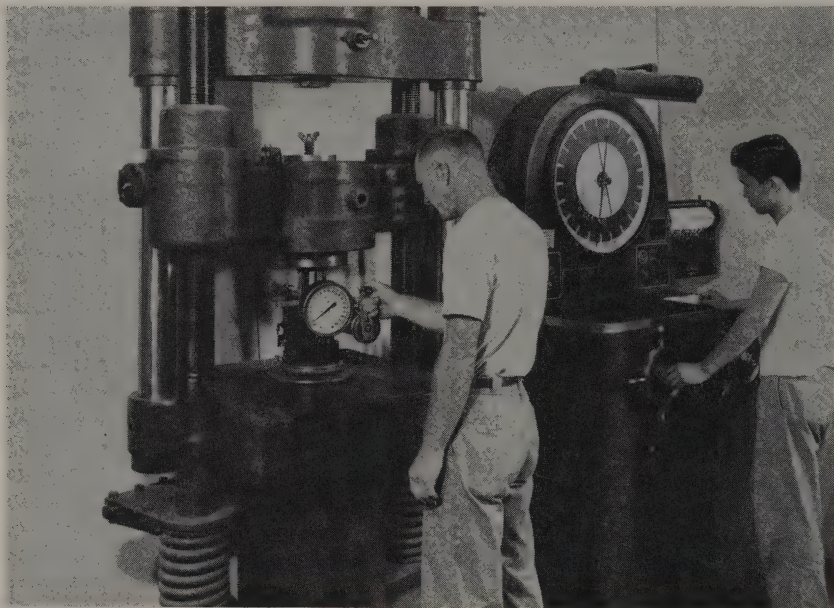
Chemical Section

In the chemical section of the Laboratory 15,000 tests were made on approximately 20 different kinds of materials. An intensive research program on traffic paints has been inaugurated. Some two hundred specimens were placed on the street for observation by the Laboratory. Since acquisition of a modern striping machine, specific traffic paint tests have been started on a number of highways under various traffic conditions. In addition to this work, an extensive program was carried on throughout the State by providing seven different traffic paint formulations for large-scale trial in the regular traffic painting program. This work was initiated partly because of the scarcity of materials and partly for the purpose of gaining information.

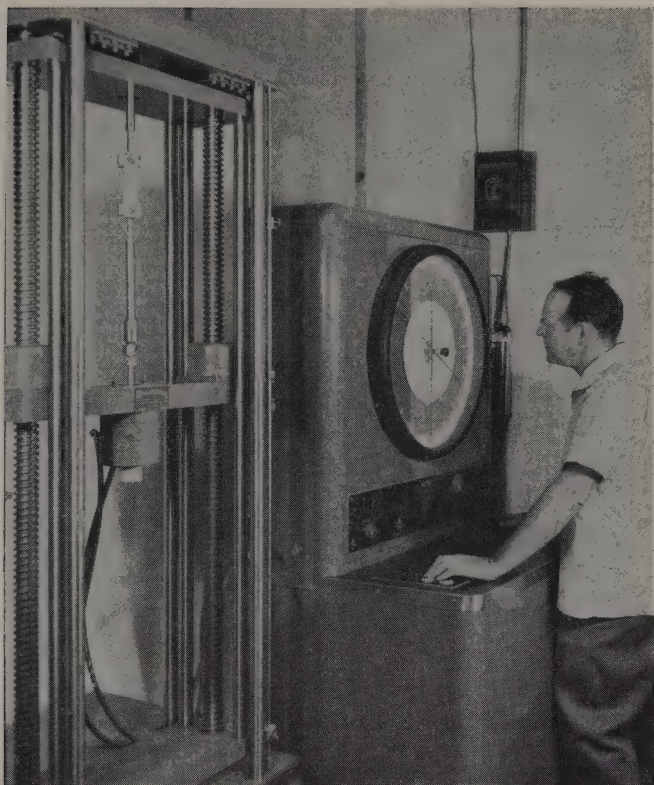
Cement and Concrete Section

This section has continued its routine control testing and numerous research projects. Some of the more important studies are the following:

1. Further study of the effect of calcium chloride on curing temperatures and conditions, and on volume change, compressive strength and flexural strength.



UNIVERSAL TESTING MACHINE, 200,000 pounds capacity, with automatic stress-strain recorder. In use in Sacramento Materials and Research Laboratory.



SENSITIVE UNIVERSAL TESTING MACHINE with full scale ranges from two to 5,000 pounds and testing speeds up to 20 inches per minute. In use in Sacramento Materials and Research Laboratory.

2. Additional study of the reactive aggregate problem.
3. Large-scale study of the effects of Pozzolan material on shrinkage and other properties of concrete.
4. Study of the measurement of the consistency of concrete in the field.
5. Study of ways of improving the strength of concrete made from aggregates that in the past have produced low early strength concrete.
6. Field work in connection with the Truck Weight and Pavement Condition Study at 20 loadometer stations in various parts of the State. Transverse profiles of the pavement were taken at 10- or 20-foot intervals on 1,000-foot test sections by a special profilograph developed at the Laboratory.
7. Air entraining design and special concrete design in collaboration with various departments and other agencies.

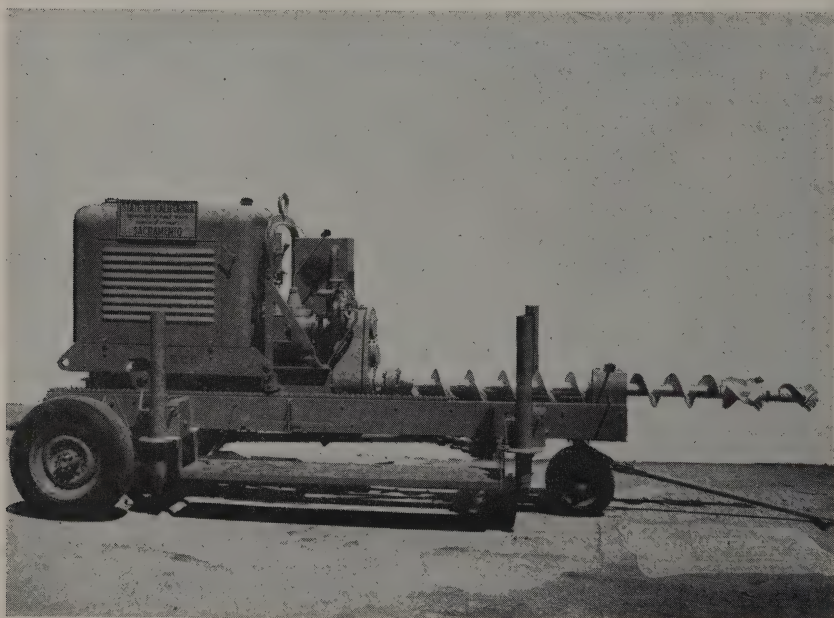
Steel Section

The Steel Section has handled the inspection and testing of 39,480,000 pounds of reinforcing steel and 33,436,000 pounds of structural steel and castings for the expanded construction program. Inspection and testing was also handled for considerable amounts of other construction materials, including 3,445,000 pounds of miscellaneous steel products, 266,000 lineal feet of concrete and clay pipe, 30,500 lineal feet of cast iron and steel pipe, 202,000 square feet of expansion joint filler and rubber water stops, 528,000 board feet of untreated timber, 320,000 board feet of treated timber, and 194,000 lineal feet of timber piles. New methods of submerged welding and new types of welding electrodes were investigated. An investigation was also initiated of the use of equipment for nondestructive material testing.

Miscellaneous Testing

Miscellaneous experimental studies and development work are constantly carried on in the Laboratory. Development of specifications, and investigation of materials for compliance with specifications continue to receive considerable attention.

This department in collaboration with the Service and Supply Department has performed tests and conducted studies to evaluate new products and permit preparation of specifications. Among the materials tested are reflectorized guide plates, fire extinguishers, floor wax, decalcomanias, and plastics for highway signs. Newly acquired testing machines have improved the testing facilities of the Laboratory.



NEW HORIZONTAL DRILL used by Materials and Research Department for installation of horizontal drains



Truck with SPECIAL SURVEY CREW BODY and special compartments for carrying engineering equipment

EQUIPMENT

There have been many important changes in the procedures and facilities of the Equipment Department during the past year. Operational methods have been streamlined and physical facilities, including machinery and buildings, expanded and improved. The primary functions of this department have remained substantially the same, with additional duties added to comply with new legislation. Organizational policies have emphasized improvement to services rendered, increased efficiency, and the balancing of operating costs with income derived from the equipment rentals.

The system places responsibility for making recommendations covering the acquisition of new equipment and the establishment of equitable rental rates on the Equipment Department. In order to maintain the department as a self-supporting unit these rental rates must provide for the cost of repairs, administration, and a depreciation reserve which provides for replacing the units, in kind, at the end of their useful life.

Financial

Although the present system of equipment rentals had no precedent at the time of its adoption, it has followed the general basic system inaugurated in 1924. Many other states, after studying California's system, have adopted a similar one. Since its inception, costs have been continually analyzed and rental adjustments constantly made on all units. This system, which permits flexibility in adjusting rental rates, permits the

department to keep a balance between moneys received and expended. Continuing statistical studies are in progress on the current rental rates and the use of equipment. These studies have resulted in the liberalization of the rental regulations and will result in rental rate adjustments when warranted.

The rental system must keep pace with the growth of the Division of Highways and the resulting increased activities of the Equipment Department. The figures shown in the comparison of the financial statements for the year ending June, 1941, and the one for June, 1951, are representative of this growth and expansion. In the past 10 years the inventory value of rental equipment has increased from \$6,059,000 to \$15,579,000. Materials and supplies, comprising the stock on hand, in the same period of time has increased from \$153,700 to \$750,900. The annual cost of equipment repairs has jumped from \$828,000 to \$2,177,000. The yearly income has increased from \$2,012,000 to \$4,606,000.

Distribution to the several classifications is shown in the following inventory of rental equipment owned by the Division of Highways.

TRUCKS AND PASSENGER VEHICLES

All trucks, ½-ton to 10-ton	\$6,300,000
Buses, jeeps, station wagons	298,000
Passenger automobiles	1,951,200
Snogos	782,000

CONSTRUCTION EQUIPMENT

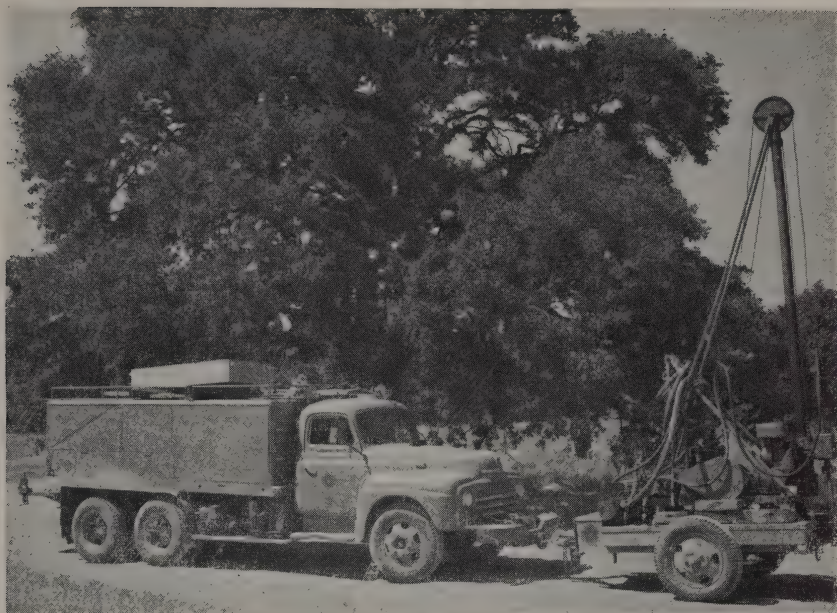
Motor graders	\$2,008,000
Shovels, power	630,000
Loaders	800,000
Tractors	1,098,000
Snow plows	246,000
Compressors	186,000
Miscellaneous other construction equipment: rollers, mixers, trailers, pumps, drills, mowers, etc.	1,280,190

Total inventory rental equipment	\$15,579,390
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The following tabulations give comparative figures of the Equipment Department's financial statements for the last two fiscal years:

	<i>Fiscal year ending June 30, 1950</i>	<i>Fiscal year ending June 30, 1951</i>
Equipment repairs	\$2,022,433.73	\$2,177,106.04
Miscellaneous expenses	203,940.38	198,511.34
Administrative expenses	454,615.28	474,617.83
Depreciation reserve	1,641,285.57	1,517,998.81
Total expense	\$4,322,274.96	\$4,368,234.02
Total income	4,359,994.31	4,606,354.90
Excess income over expense	\$37,719.35	\$238,120.88

The excess of income over for each of the past two years marks progress made in reducing the \$493,800 operating deficit of the fiscal year ending June 30, 1949.



FOUNDATION-EXPLORATION "CONCORE" DRILL with special body truck

Headquarters and Shops

The Equipment Headquarters and principal shop, including the parts section and storage facilities, are located in Sacramento. This location provides ready access to other departments of the Division of Highways Headquarters and to equipment concentrations in the Marysville and Stockton areas.

In addition to the Headquarters Office and shop in Sacramento, district shops are maintained in 9 of the 11 districts. Rental equipment assigned to the San Francisco-Oakland Bay Bridge is maintained in a shop operated by Bay Bridge organization. District shops are staffed and equipped to provide efficient maintenance service to equipment assigned to them. Each of the main shops located in a district is equipped to care for the average repairs likely to be needed in that particular section. Other repairs which may be beyond the shop's facilities are usually of such infrequent occurrence that the extra transportation costs, etc., for repairs at properly equipped outside shops are warranted.

The Equipment Department has standardized on a class "A" shop building that can readily be adjusted to most needs; a frame office structure also has been designed in two styles so that one suitable to a location may be selected. All buildings now under construction, and those to be built in the future, will conform to these types.

The fire-damaged Shop 2 building at Redding is being replaced in the same yard with the standardized type class "A" structure. The 17,202 feet of floor space in this new building is an increase over the size of

the old shop and is necessary to properly accommodate present requirements. Much of the equipment used in the former shop dated back to World War I; this has been replaced and additional modern shop tools that the Government disposed of following World War II have been acquired and installed.

Additional ground adjacent to that already occupied has been acquired in connection with the erection of a standardized shop in Oakland. This new building is nearly completed and when finished will replace the present Shop 4 structure.

Aside from those shops specifically mentioned, replacement of some existing structures is under consideration. Additional ground also is being secured for shelter structures, etc., at some points. The following table indicates the present covered space and other information, at each shop:

<i>Shop</i>	<i>Location</i>	<i>Personnel</i>	<i>Floor space (square feet)</i>	<i>Inventory value of rental equip- ment cared for</i>
Hq.	Sacramento -----	159	75,177	\$1,046,389.44
1	Eureka -----	35	24,567	1,413,612.26
2	Redding -----	51	21,108	2,137,322.76
3*	Marysville -----	10	None	1,244,407.12
4	Oakland -----	43	18,040	1,352,669.97
5	San Luis Obispo -----	25	12,737	877,894.69
6	Fresno -----	36	16,620	1,305,077.24
7	North Hollywood -----	61	24,931	1,989,005.29
8	San Bernardino -----	36	12,321	1,148,735.18
9	Bishop -----	19	15,776	654,173.47
10*	Stockton -----	13	None	1,136,070.71
11	San Diego -----	30	18,045	783,575.21
	San Francisco-Oakland Bay Bridge, Oakland -----	†	4,618	141,302.82
				\$15,230,236.16

* Equipment repair at Headquarters Shop.

† Shop personnel not under Equipment Department.

Equipment Development

In the past year numerous new types of equipment units have been designed and constructed by the department and others acquired through purchase. Modernized methods of maintenance, as well as the development in the equipment field of labor-saving machinery, have combined to produce equipment units not previously used by state forces. Following are a few of the new types of units now operating satisfactorily in the various parts of the State.

Fire hazard and climatic conditions which ordinarily retard the disposal of brush and small trees removed from the roadsides in the northern districts suggested the acquisition of a "portable brush chopper." This unit performs somewhat like a "planer," cutting into small chips all vegetation and brush, including trees up to six inches in diameter, and blowing it to the roadside where it acts as a mulch.

A roadside cleaning machine, working on the vacuum principle, has been acquired and is being used to reduce the cost of cleaning littered roadsides in the southern part of the State. The machine is equipped with a large storage bin, and powerful suction fan which picks up the material

from the roadside through a flexible pipe. This machine is proving valuable in eliminating hand labor in picking up and disposing of roadside litter such as papers, tin cans, and other light weight material discarded from traveling automobiles.

A steel body has been designed at Headquarters Shop, to be mounted on a two-ton truck chassis, for use by the various sign crews in the maintenance and installation of all large or small roadside and directional signs. The body provides for carrying a supply of all types of signs, various kinds of posts, concrete materials, paints, tools, and other accessories used in this type of work.

A special trailer has been designed and constructed at Headquarters Shop for carrying all the various sizes and types of stencils, paints, and other accessories used by crews painting cross-walks and signs on pavements.

Hydraulic and cable-operated extension hoists, mounting a work platform, are being supplied. These devices will elevate a man up to 32 feet and permit him to maneuver himself into various positions for the purpose of working on lighting installations, trimming trees, and other operations of like nature.

Special surveyor bodies, field mechanics bodies, and materials bodies have been developed for mounting on suitable chassis and providing for the carrying of personnel and storage of supplies used in the various operations. In the design of these units attention has been given not only to adequate storage for the various supplies, but also to their protection while being transported. The saving in time by having supplies properly protected and in their proper place, when and where needed, is reflected in economy of operations.

Foundation exploration drills of various kinds and sizes have been developed and assembled for use by the Bridge Department and the Laboratory.

Yard cranes have been assembled at a very low cost by utilizing war surplus cranes and hoists mounted on heavy truck chassis which have become obsolete for maintenance purposes but are still adequate for the small amount of travel involved in this service.

Complete self-contained servicing units for use in convict construction camps have been constructed. These units are mounted on two-ton truck chassis and carry all greasing equipment together with pressure hoses on reels, battery equipment, tire-inflation equipment, and miscellaneous tools needed to service and grease equipment on the job.

Cooperation

In accordance with past policy the department has cooperated with other state agencies in furnishing advice, as requested, in the acquisition of construction units. When the work load permits, district shop facilities are available to other state agencies in the repair of equipment for those agencies.

Requests for details and plans of some of the equipment developed have been received from political subdivisions as far away as Australia and South Africa.

Disposal of Old Equipment

The effort made between March and August of 1950 to secure a better price and delivery on equipment when old units were turned in as part payment for the new or replacement units was not successful. While better prices were usually obtained for the unit being offered for turn-in than would have been secured from an outright sale, the net result was a definite loss to the State of about 15 percent on purchase prices of the new units secured. This was due to the fact that bidders raised their bid price to more than absorb the increased allowance on the old unit. The State also lost the use of the old unit during the "trade-in" process. The total dollar value secured from sale of old rental equipment during the period covered by this report was \$284,090.97.



FOUNDATION-EXPLORATION AIR HAMMER, assembled at Headquarters Shop for Materials and Research Department

Renting

The custom of renting from outside sources such road building equipment as could not be had from highway-owned "available for transfer" equipment, is continued. This expedient is resorted to only when the short period of an equipment unit's need does not warrant either a transfer of owned, or the purchase of a new unit.

OPERATIONS ADMINISTRATIVE FUNCTIONS

Service Agreements and Miscellaneous Small Contracts

The Division of Highways business transactions are handled, in general, by means of regular advertised contract procedures, contracts or agreements for right of way acquisition and moving of public utilities, purchase orders for materials, and service agreements—the latter covering services of all kinds necessary to the Division's operation.

Service agreements include any service covering labor and materials, equipment rentals, construction contracts on work costing less than \$1,000, projects for moving and alterations of houses and buildings, and demolishing buildings and structures in connection with the clearing of rights of way in advance of construction activities. During the past fiscal year, over 5,500 service agreements amounting to a value of



TRANSPORT UNIT consisting of six-wheel truck tractor
and 25-ton gooseneck semitrailer

more than \$2,250,000 were reviewed or approved by this section. In line with the policy of the Division of Highways, all work on the highway involving labor included references to the State Labor Code and required payment of prevailing wages.

Of the above agreements, 793 involved equipment rental for maintenance in the amount of \$991,000.

Fifty-four of the service agreements totaling \$272,330 for alterations such as buildings, irrigation facilities, water wells, etc., were underway during the year and 36 were completed. Demolishing of buildings was particularly active with 74 contracts in progress totaling \$125,870. During the fiscal year, 59 of these were completed and accepted; and at the close of the year 15 were still going. There were 18 demolition jobs where the contractors paid the State a total of \$1,940 for salvaged materials, a credit factor which is present on nearly every building demolition contract. At the end of the year, four of these 18 contracts were incomplete.

Equipment Rental Rates

A study is underway on the rates charged by contractors for equipment rentals on contract change orders and includes information on the practices of other states, federal agencies, and manufacturers. While in general the rates being charged are reasonable, they are not always consistent, being at times either too low or too high. Progress is being made in discussions of this subject with the contractors' organizations.

Contractor's Claims

In case of disagreement between the District Engineer and a contractor, relative to payment for items on a highway construction contract, the latter may present a claim which is then referred to a board of review for consideration and recommendation to the State Highway Engineer for final decision. This board consists of the Assistant State Highway Engineer, Administration, the Assistant State Highway Engineer, Operations, and an attorney of the Division of Contracts and Rights of Way. A similar board with the Assistant State Highway Engineer, Bridges, instead of Operations, serve on claims submitted by bridge contractors.

During the past fiscal year eight claims were filed on which no hearing was requested, seven being accepted and one denied. Five claims were heard by the Board of Review and the State Highway Engineer granted two, denied two and one was under consideration at the end of the fiscal year. One claim is pending a hearing and another has been submitted but a hearing not requested. Four claims from past years were subjected to court action during the year and one decided in favor of the State with three pending decision.

Prevailing Wages and Labor Relations

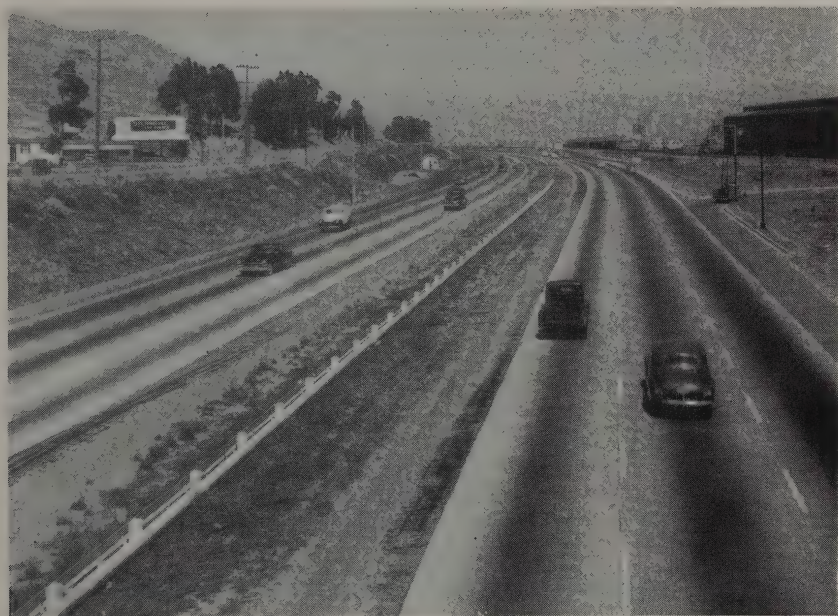
Prevailing wage information was furnished to the Office Engineer for all projects advertised for bids and to the districts for service agreement contracts where wage rates are required by law. The method of determining the prevailing wage rates remained the same as for past years.

In general, it has been found that the wage rates negotiated between contractor associations and organized labor groups are the prevailing rates in the construction industry.

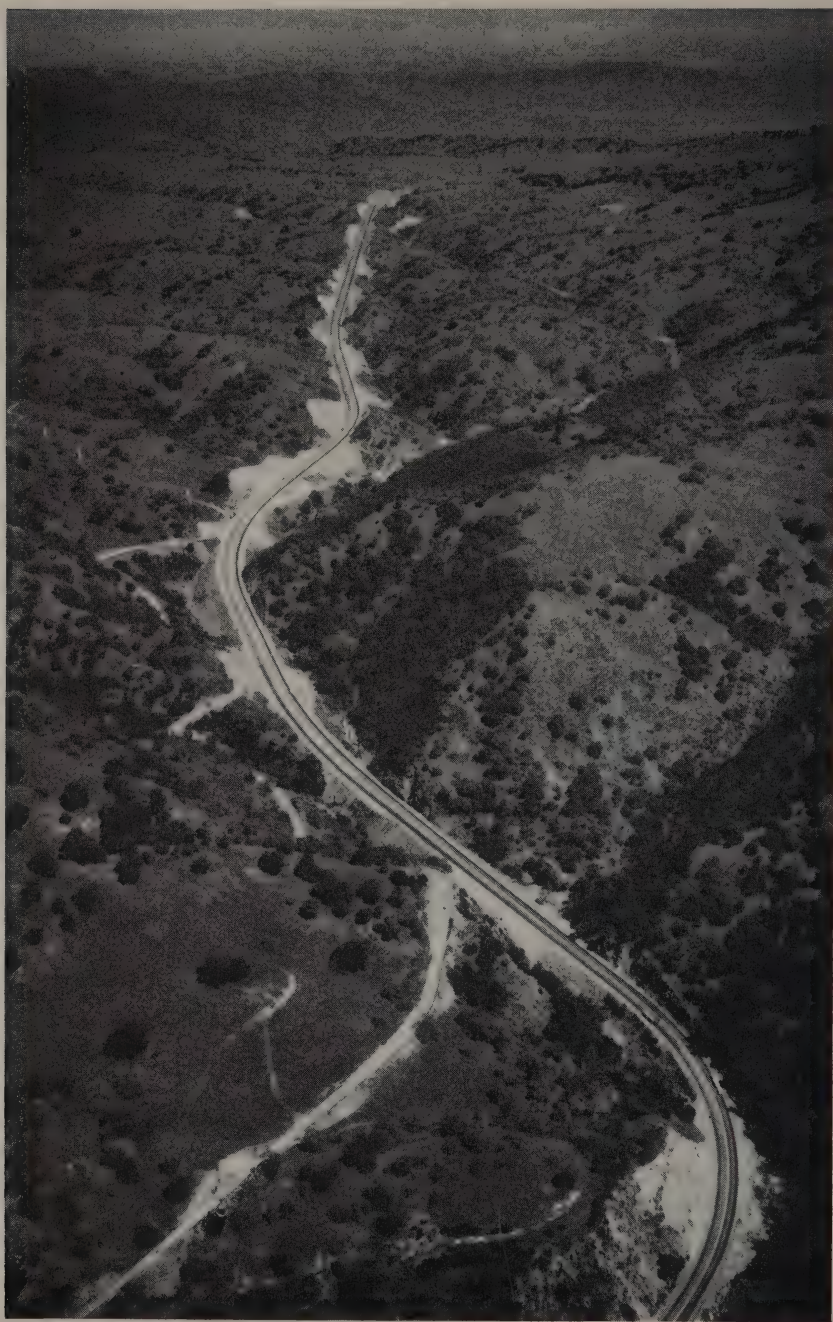
New contracts for each of the six basic crafts for increased wages were completed in the northern and southern parts of the State during the fiscal year.

Very few violations for failure to pay prevailing wages have been reported.

The friendliest spirit has prevailed in all dealings with the unions and the contractors' organizations, both having worked in a most cooperative and understanding manner in matters pertaining to labor relations on highway projects.



BAYSHORE FREEWAY south of San Francisco in San Mateo County



AERIAL VIEW OF FOUR-LANE SECTION OF STATE SIGN ROUTE 152 over Pacheco Pass in the Coast Range east of Gilroy in Santa Clara County. An important lateral connection between the Coast Route and the San Joaquin Valley.

ADMINISTRATION

The Assistant State Highway Engineer, Administration, directs the following phases of activities of the Division of Highways:

- Office Engineer's functions,
- County and county cooperative projects,
- City and city cooperative projects, and
- Service and Supply Section.

As noted in prior reports, the Office Engineer supervises the administration of federal-aid apportionments, except that federal-aid secondary apportionments are processed under county and county cooperative projects. Recommendations of bid ratings for contractors who wish to be prequalified to bid on state highway construction are made by the Office Engineer. Other Office Engineer's functions include: engineering budget control and preparation of financial, route adoption and freeway declaration votes for action by the Highway Commission; control of administrative accounts; specification preparation and final correlation of contract plans and specifications; advertising and opening of bids and preparation of contracts; processing of progress and final estimates on contracts; engineering review and preparation of condemnation resolutions, abandonment and relinquishment votes for commission action; blueprinting and reproduction for all Headquarters' offices; the department's general files; compilation and analysis of construction cost data and other statistical information; and preparation and publication of departmental reports.

The county and county cooperative projects' function covers administration of that portion of federal-aid secondary apportionments allocated to the counties of California for improvement to county roads located on the Federal-Aid Secondary Highway System.

The city and city cooperative function involves administration by the Division of Highways of the five-eighths of a cent of gas tax funds apportioned to the cities for construction and maintenance of major city streets under provisions of the Collier-Burns Highway Act and of the unexpended balances of the one-quarter cent gas tax funds apportioned to cities prior to the effective date of the Collier-Burns Act.

The Service and Supply Section administers procurement, warehousing and distribution of all supplies and equipment, other than road equipment, for the Division of Highways. Service and Supply also administers and processes applications and documents under federal regulations for controlled materials for all highway, street and road building agencies in the State.



AERIAL VIEW OF EASTSHORE FREEWAY IN OAKLAND. Twenty-third Avenue Grade Separation in foreground, Nineteenth Avenue Overcrossing in middle distance.

Construction Cost Index

One important phase of the Office Engineer's Section includes compilation and evaluation of data relative to the trend of highway construction costs. The California Highway Construction Cost Index, using 1940 as the base year with a value of 100, is compiled each quarter and reflects the rapid changes in highway construction costs.

Highway construction cost trends since 1940 are shown by the following tabulation of the index:

<i>Year</i>	<i>Cost index</i>	<i>Year</i>	<i>Cost index</i>
1940 -----	100.0	1949 (1st half) -----	198.1
1941 -----	125.0	1949 (2d half) -----	183.4
1942 -----	157.5	1950 (1st quarter) -----	160.0
1943 -----	156.4	1950 (2d quarter) -----	180.0
1944 -----	177.8	1950 (3d quarter) -----	189.2
1945 -----	179.5	1950 (4th quarter) -----	194.8
1946 -----	179.7	1951 (1st quarter) -----	215.4
1947 -----	203.3	1951 (2d quarter) -----	238.3
1948 (1st half) -----	216.8	1951 (3d quarter) -----	221.9
1948 (2d half) -----	216.4		

It will be noted that the rising spiral of construction costs reached a peak of 216.8 in the first half of 1948 and then fell to 160.0 in the first half of 1950. The inflationary economic forces brought on by the building boom and the Korean War started a sharp up-trend with the index reaching 238.3 in the second quarter of 1951, the highest point reached by the index, which is a rise of 48.9 percent above the first quarter of 1950 low of 160.0 and 9.9 percent above the previous high in first half of 1948. During the third quarter of 1951 the index dropped 6.9 percent to 221.9. However this is considered merely a leveling-off from a false peak to the general line of rise which is expected to continue for some months.

Prequalification of Contractors

Under California statutes all contractors desiring to bid on state highway projects estimated to cost \$15,000 or more are required to be prequalified by the Department on the basis of their financial condition and experience and to be given a maximum rating which limits their bidding capacity.

During the fiscal year ending June 30, 1951, the total number of contractors prequalified to bid on the various types of state highway construction decreased from 674 on July 1, 1950, to 613 on June 30, 1951. The combined bidding capacity of these 613 prequalified contractors is \$1,032,000,000. In determination of this total bidding capacity a maximum of \$20,000,000 for individual ratings is used, that is, ratings in excess of that amount are entered at the \$20,000,000 figure.

The following tabulation gives the number of contractors prequalified by the Division of Highways on June 30, 1951, arranged by several brackets of bid ratings:

\$1,000,000 and over -----	185
250,000 to \$1,000,000 -----	399
125,000 to 250,000 -----	490
50,000 to 125,000 -----	600
up to 50,000 -----	613



LOOKING WESTERLY ON EASTSHORE FREEWAY IN OAKLAND.
High Street Grade Separation in foreground.

During the year bids were opened on 397 projects, including both road and structures, compared with 385 in the preceding fiscal year. Of this number all bids were rejected on 29 projects, while only six were rejected the previous year. The effect of current unsettled world conditions on the state highway program, as reflected by the continued sharp increases in bid prices on construction projects during the 1950-51 Fiscal Year, is further indicated by reduction in the average number of bidders from last year's 7.3 to this year's 5.0. The number of bidders varied on a monthly basis from a high of 6.7 in November, 1950, to a low of 3.2 in June, 1951.

Progress in Freeway Development

As pointed out in other sections of this report, one of the most important phases in the Department's program toward alleviation of traffic congestion on the State Highway System is the development of full freeways in the metropolitan areas of the State. Under the Division of Highways policy of advancing such development along several fronts at once, and at the same time developing expressway construction on main rural arterials, progress may appear slow. However, study of statistical data on the state-wide construction over the past several years indicates that each year sees notable advancement.

Between the passage of the Collier-Burns Act in 1947 and June 30, 1951, contracts for a total of 2,563 miles of state highway construction have been placed under way. Broken down to fiscal years this mileage is as follows:

1947-48	646 miles	1949-50	730 miles
1948-49	657 miles	1950-51	530 miles

These figures cover work on the State Highway System only and do not include 666 miles of federal-aid secondary highway construction on county roads and work on State Park roads.

Of this 2,563 miles of construction in four years 479 miles was for divided highway of four or more lanes on the state system including both freeway and expressway types of construction. Broken down to fiscal years this 479 miles of divided highway construction is as follows:

1947-48	106 miles	1949-50	115 miles
1948-49	107 miles	1950-51	151 miles

Records in Headquarters' Office at the present time show 90 miles of the full freeway type, that is, divided highways with no cross traffic or left turns at grade, on the State Highway System.

For information relative to progress on freeway construction the accompanying tabulations are given to show, contract by contract, the work accomplished on the principal metropolitan freeways since the Division of Highways has been building this ultra-modern type of highway facility. In these tabulations the column headed "Construction Cost" includes only the actual construction and construction engineering charges; it does not include the costs of right of way acquisition or right of way clearance.

EASTSHORE FREEWAY—NORTH

Contract number	Co-Rite-Sec	Location	Miles	Awarded	Completed	Type of work	Construction cost
64TTC16	Ala-69-Env.	At Paraffine Co.'s Plant, under Bay Bridge Approach		3/ 3/34	9/12/34	U. C.	\$28,337
84TTC1	Ala-5-69-Oak, Env.	Over A.T. & S.F.R.R., S.P. Co. & Key System Tracks (Distrib. Struct.)		4/24/35	8/21/36	Structure	1,276,800
64TTC29	Ala-69-Ber.	At Folger Ave. in Berkeley		5/31/35	12/ 6/35	U.C.	137,247
84WCI	Ala-69-Ber.	Bet. Folger Ave. & Gilman St.		10/16/35	5/ 8/36	Dredger Fill	237,873
814PGWC1	Ala-69-Alb.	Near El Cerrito Hill in Albany	2.0	11/13/35	9/16/36	U.C.	268,281
84TCS	Ala-69-Ber.	Bet. Folger Ave. UP & 9th St.	0.3	4/29/36	9/ 2/36	Gr. & Pave.	35,426
84PWC2	Ala, CC-69-Ber, Alb-A, Rich, E.C.	Bet. Camelia St. & San Pablo Ave.		6/16/36	8/ 2/37	Gr. & Surface	275,928
84WC4	Ala-69-Env, Ber.	Bet. Folger Ave. & Camelia St.	3.1	6/16/36	12/19/36	Gr. & Surface	155,780
84T8	Ala-69-Oak, Env, Ber.	Bet. Dist. Struct. & Folger Ave. UP	1.7	8/17/36	12/ 3/36	Lighting	22,086
84W1	Ala-69-Env, Ber.	From Folger Ave. Wye to University Ave.	1.7	8/17/36	12/ 3/36	Lighting	19,284
84TTC15	Ala-5, 69-Oak, Env, Ber.	Bet. Distribution Structure & University Ave.	3.3	4/22/38	12/ 2/38	Landscape	97,793
44TTC4	Ala, CC-69-Env, Ber, Rich	Bet. Powell St. & Panhandle Blvd.	1.3	1/ 6/42	10/21/42	Gr. & Pave.	238,617
4AWC1	Ala-69-Ber.	In Vicinity of Gilman St.	0.5	8/22/44	3/ 2/45	Gr. & Pave.	88,368
4W13	Ala-69-Ber.	In Vicinity of Gilman St.		8/23/44	6/ 5/45	Signals	88,801
4WC16	Ala-69-Ber, Alb.	Bet. University Ave. & El Cerrito Hill Overhead *	0.9	12/11/44	5/12/45	Pave.	102,959
14TMC2	Ala-5, 69-Oak.	Bay Bridge Distribution Structure.		8/11/48	5/ 9/49	Paint	43,557
1-4TTC90	Ala-69-Alb.	At Cerrito Creek		7/ 7/49	3/ 6/50	Culvert	*46,537
4TTC41	Ala-69-Env, Ber.	Powell St. to University Ave.		11/14/50	Underway	Widening	9,000
52-4TTC2	Ala-69-Ber, Alb.	Ashby Ave. to El Cerrito Overhead	2.4	4/17/51	7/16/51	Gr. & Pave.	*116,014
Total to 6/30/51							\$3,134,038

NOTE: * opposite a contract indicates final cost figures not yet available.

EASTSHORE FREEWAY—SOUTH

Contract number	Co-Rte-Sec	Location	Miles	Awarded	Completed	Type of work	Construction cost
14WC8	Ala-69-Oak	Fifth Ave. Overhead	---	6/21/46	3/31/48	O.C.	\$1,953,200
14WC9	Ala-69-Oak	At Fruitvale Ave.	---	12/9/46	12/15/47	O.C. Substructure	435,477
14WC10-F	Ala-69-Oak	At 23d Ave.	---	6/16/47	12/2/48	O.C.	498,648
4WC31-F	Ala-69-Oak	1 Mi. N. of S.C.L. of Oakland to 0.3 Mi. S. of High St.	2.3	6/25/47	4/20/48	Grade	921,926
14WC11-F	Ala-69-Oak	At 29th Ave. in Oakland	---	6/27/47	6/17/48	O.C.	169,111
14WC12-F	Ala-69-Oak	At Fruitvale Ave.	---	8/13/47	12/16/48	O.C. Superstructure	653,514
14TC31-F	Ala-69-Oak	19th Ave.	---	10/22/47	2/21/49	O.C.	434,389
0-14TC37-F	Ala-69-Oak	Elmhurst Cr., Damon St. & East Crk. Slough	---	4/1/48	1/3/49	Bridges	256,796
0-4TC48-F	Ala-69-Oak	Bet. 38th Ave. & Oak St.	2.9	4/1/48	8/11/49	Gr. & Surface	*1,646,139
4TI02	Ala-69-Oak	14th and 23d Aves.	---	3/17/48	---	Storm Drains	45,500
0-14TC53-F	Ala-69-Oak	Bet. 50th Ave. and 38th Ave.	0.7	8/3/48	3/30/51	Gr., Pave, Strs.	*1,734,084
4TI15	Ala-69-Oak	Sta. 205+24 to Sta. 358+50	---	3/15/49	Underway	Signs	11,000
1-14TC64-F	Ala-69-Oak	At High St.	---	4/1/49	5/18/50	O.H.	*744,749
0-4TC83-F	Ala-69-Oak	S.C.L. to High St.	3.3	5/20/49	6/7/50	Gr., Pave, Strs.	*1,498,959
1-14TC84-F	Ala-69-SLn, Oak	Across San Leandro Crk. & S.P.R.R. Tracks at South City Limits of Oakland	---	1/10/50	4/16/51	Bridges	*712,572
4TI26	Ala-69-Oak	South City Limits to High St.	3.3	1/12/50	Underway	Signs, Stripes, Markings	6,800
4TI27	Ala-69-Oak	At 42d Ave. Interchange & High St. OH	---	3/2/50	Underway	Signs, Stripes, Markings	13,000
51-4TC17-F	Ala-69-C, SLn, Oak	Lewelling Blvd. to 0.1 Mi. N. of S. City Limits of Oakland	4.2	10/26/50	Underway	Gr., Br., Strs.	3,048,385
51-4TC21	Ala-69-Oak	38th Ave. to Fallon St.	2.8	11/8/50	9/13/51	---	*110,484
Total to 6/30/51	---	---	---	---	---	---	\$14,894,773

NOTE: * opposite a contract indicates final cost figures not yet available.

BAYSHORE FREEWAY

Contract number	Co-Rte-Sec	Location	Miles	Awarded	Completed	Type of work	Construction cost
14TC2	SCI-68-C	At Ford Road about 6 miles South of San Jose.		12/ 4/45	4/18/47	U.C.	\$24,075
14TC3	SCI-68-C	Coyote Creek and Coyote Road.		12/ 4/45	7/25/47	Gr. & U.C.	286,284
4TC20	SCI-68-C	San Jose to South of Ford Road.	8.1	12/20/45	5/13/47	Gr. & Fave.	523,840
14TC9	S.M-68-SM	At Peninsular Ave.		1/22/46	12/10/47	O.C.	218,327
14TC11	SCI-68, 2-SJs	At Santa Clara St.		4/ 1/46	9/19/47	Gr. Separation	452,473
4TC24	S.M-68-Burl, SM	Bet. Broadway in Burlingame to State St. in San Mateo.	2.2	6/22/46	12/10/47	Gr. & Pave.	744,639
4TC26	S.M-68-SSF	Bet. S.P.R.R. & 0.5 Mi. Southerly.	0.5	6/26/46	4/ 2/47	Sand Drains	226,255
4TC37	SCI-68, 2-SJs	At Santa Clara St.		7/ 6/46	12/11/47	Detour	7,280
4TC30	S.M-68-SSF, F, Burl	Colma Cr. in S. San Francisco to Broadway in Burlingame.					
4TC13	SCI-68, 2-SJs	At Santa Clara St. Underpass in San Jose.	5.1	10/ 9/46	12/31/47	Gr. & Pave.	3,026,235
14TC19	S.M-68-F, Burl						
14TC20-F	S.M-68-SSF	South San Francisco to Burlingame.	0.5	2/ 6/47	8/18/47	Landscape.	17,341
4TC62	SCI-68-B, SJs	In South San Francisco.		2/28/47	3/26/48	Substr. 4 O.C.	429,581
14TC22-F	S.M-68-SSF	At McKee Road.		4/11/47	7/27/48	3 Br. Substr., 2 Up	511,380
14TC24-F	S.M-68-F, Burl	At Main Line & Belt Line RR in SSF.		4/17/47	6/29/48	Signals	7,822
4TC42-F	S.M-68-SSF	South San Francisco to Burlingame.		6/27/47	2/ 4/49	Superstr. 2 O.C.	667,884
4TC43-F	S.M-68-SSF	N.C.L. of S. San Francisco to S. of Colma Creek.	2.1	8/ 7/47	1/28/49	Superstr. 4 O.C.	1,038,090
4TC46	S.M-68-Burl, SM	South San Francisco to Burlingame.		8/21/47	5/24/49	Gr. & Pave.	*1,138,157
4TC46	S.M-68-Burl, SM	Broadway in Burlingame to Peninsular Ave. in San Mateo.		9/10/47	5/16/49	Signals	22,308
4TC94	S.M-68-SSF, F, Burl		2.0	2/13/48	7/14/48	Landscape.	10,865
4TC81	S.M-68-SSF, F, Burl	S. San Francisco UP to Broadway in Burlingame.		2/24/48	9/ 8/48	Restore Grade.	7,133
4TC53	S.M-68-SSF, F, Burl	Colma Cr. to Broadway in Burlingame.	4.9	4/29/48	10/17/49	Signs & Stripes.	19,785
0-4TC62	SCI-68B, SJs	Colma Cr. in SSF to Broadway in Burlingame.	4.9	5/ 5/48	7/30/48	Ar. Coat.	20,802
1-4TC82-F	SF-68-SF	Gish Road to Rte. 5.	0.5	6/18/48	11/29/48	Pave.	75,639
1-4TC96	S.M-68-SSF, F, Burl	Augusta St. to 25th St.	1.3	5/11/49	Underway	Gr., Surf., Strs.	3,135,347
51-14TC31-F	SF-68, 2-SF	Grand Ave. to Broadway.	5.5	11/ 1/49	9/18/50	Landscape.	*45,648
Total to 6/30/51		18th St. to Bryant St.	0.7	6/22/51	Underway	Structures	3,558,309
							\$16,215,499

NOTE: * opposite a contract indicates final cost figures not yet available.

NORTH SACRAMENTO FREEWAY

Contract number	Co-Rte-Sec	Location	Miles	Awarded	Completed	Type of work	Construction cost
414TC4	Sac-3-B, NSac	bet. American River Bridge and North Sacramento. At Intersection of 12th & 16th Sts.		6/20/41	12/22/42	Viaduct & Appr.	\$357,647
3TC3	Sac-3-B	bet. North Sacramento Viaduct & 0.5 Mi. E. of Ben Ali		1/14/44	12/21/44	Signals	9,144
3TC21	Sac-3-B	North Sacramento Freeway	4.1	12/20/45	12/30/47	Gr., Pave, Strs.	1,008,257
3TC56	Sac-3-B	North Sacramento Viaduct to Howe Ave.		8/5/46	1/4/47	Signs & Stripes	8,021
3TC43	Sac-3-B	bet. North Sacramento Viaduct & 0.5 Mi. E. of Ben Ali		11/13/47	12/14/48	Lighting	32,179
3TC40	Sac-3-B	North Sacramento Freeway		2/4/48	6/18/49	Landscape	*87,079
3TC88	Sac-3-B	North Sacramento Freeway	0.3	8/1/48	9/1/48	Curbs	6,380
0-3TC55	Sac-3-B	North Sacramento Off-Ramp	3.7	12/3/48	4/28/49	Barrier Posts	*10,330
0-3TC56	Sac-3-B	bet. North Sacramento Viaduct & 0.5 Mi. E. of Ben Ali	0.2	12/4/48	5/22/49	Gr. & Surface	*13,933
1-3TTC4	Sac-3-B	bet. North Sacramento Viaduct & 0.5 Mi. E. of Ben Ali		11/29/49	5/22/50	Illum. Sign Bridge	*4,696
3TC96	Sac-3-B			3/1/50	Underway	Safety Devices	*8,375
Total to 6/30/51							\$2,657,041

NOTE: * opposite a contract indicates final cost figures not yet available.



Aerial view showing recently completed section of BAYSHORE FREEWAY BETWEEN AUGUSTA STREET AND 25TH STREET in San Francisco. Army Street Undercrossing in foreground.



OVERCROSSING AT VERMONT AVENUE on Hollywood Freeway in City of Los Angeles

HOLLYWOOD FREEWAY

Contract number	Co-Re-Sec	Location	Miles	Awarded	Completed	Type of work	Construction cost
27V2	L.A-2-LA	Cahuenga Blvd. E. Roadway at Mulholland Hwy. (State's Share of Cost)		10/16/39	6/12/40	Br.	\$47,639
27V6	L.A-2-LA	Cahuenga Blvd. Bet. Holly Crest Drive & Fairfield Ave. (State's Share of Cost)		2/ 7/40	6/15/40	Gr., Pav. Sts.	398,390
27V10	L.A-2-LA	Cahuenga Blvd. Holly Crest Dr. to Barham Blvd. (State's Share of Cost)		5/18/40	12/31/40	Gr. Pav. Sts.	334,330
14VC10	L.A-2-LA	At Benton Way		2/ 4/46	9/ 4/47	O.C.	169,453
7VC24	L.A-2-LA	Bet. Diamond St. & Sunset Blvd.		10/24/46	5/ 7/47	St. Drains & Sewers.	197,758
14VC20	L.A-2-LA	At Silver Lake Blvd.		11/14/46	4/16/48	U.C.	
14VC22	L.A-2-LA	At Grand Ave.		12/ 9/46	1/29/48	O.C.	461,036
7VC35-F	L.A-2-LA	Vineyard Ave. to Barham Blvd.	1.8	5/28/47	2/ 9/49	Gr. Pav. Sts.	259,000
14VC32	L.A-2, 105-LA	Hollywood, Arroyo-Seco & Harbor Freeways.		6/24/47	8/ 6/49	Gr. Sep., St. Drains, Sewers, Gr.	1,735,111
14VC37-F	L.A-2-LA	Hollywood Freeway at Alvarado St.		10/20/47	10/ 1/48	U.C.	1,183,656
14VC44-F	L.A-2-LA	Virgil Ave., Hoover St. & Rosemont Ave.		1/20/48	2/ 1/49	2 U.C. & O.C.	606,574
14VC49-F	L.A-2-LA	At Figueroa St.		2/27/48	10/15/49	4 U.C. & 2 Gr. Sep.	1,099,910
7VC78	L.A-2-LA	E. Edgeware Rd. to 0.05 Mi. Easterly	0.05	4/22/48	7/19/48	Gr. & Pav.	16,888
14VC58-F	L.A-2-LA	Vendome St. & Coronado St.		4/26/48	4/28/49	2 U.C.	346,294
0-14VC54-F	L.A-2-LA	Bonnie Brue St. & Beaudry Ave.		5/14/48	5/19/49	O.C. & U.C.	447,112
7VC82	L.A-2-LA	Vineyard Ave. to Barham Blvd.		6/29/48	3/11/49	Lighting.	41,196
0-14VC64	L.A-2-LA	At Spring St.		8/23/48	9/28/49	O.C.	220,625
0-14VC65	L.A-2-LA	Melrose & Vermont Aves.		9/ 2/48	2/10/50	U.C. & O.C.	*999,005
0-14VC75	L.A-2-LA	Santa Monica Blvd. & Normandie Ave.		11/16/48	3/24/50	O.C. & U.C.	618,465
0-7VC95	L.A-2-LA	Vineyard Ave. to Barham Blvd.	1.8	11/19/48	8/ 5/49	Landscape.	28,558
0-14VC76	L.A-2-LA	Western Ave.		12/15/48	6/30/50	O.C.	*707,765
0-14VC77	L.A-2-LA	Glendale Blvd.		1/ 3/49	2/ 1/50	2 U.C.	497,352
0-7VC96	L.A-2-LA	Hill St. to Spring St.	0.1	1/18/49	1/29/51	Gr. Surface, 2 Br.	*1,695,368
0-14VC79	L.A-2-LA	Heliotrope Dr.		2/17/49	4/25/50	U.C.	321,352
0-14VC80	L.A-2-LA	E. Edgeware Rd.		3/ 1/49	12/ 5/49	O.C.	125,542
0-7VC107	L.A-2-LA	Normandie Ave. to Alexandria Ave.	0.2	4/ 8/49	7/11/49	Outer Highway.	32,420
0-7VC108	L.A-2-LA	Boston St. Extension	0.1	4/14/49	6/10/49	Gr. & Pav.	17,506
0-7VC94-F	L.A-2-LA	Virgil Ave. to Glendale Blvd.	1.6	6/ 9/49	2/23/51	Gr. & Pav.	*1,437,600
0-7VC127-F	L.A-2-LA	Glendale Blvd. to Grand Ave.	1.2	6/24/49	2/26/51	Gr. & Surface	*1,057,075
1-7VC132	L.A-2-LA	Hollywood Freeway Bet. Holly Crest Dr. & Vineyard Ave.		10/11/49	11/25/49	Signs.	4,286

Project	Location	Length (mi)	Construction Period	Construction Type	Construction Cost (\$)	Construction Cost (\$/mi)
1-14VC96-F	L A-2-1A	1.2	12/15/40	Underway	\$328,057	\$273,381
1-14VC97-F	L A-2-1A	2/8/50	4/30/51	Gr. & Pav.	*148,694	*148,694
7V158	L A-2-1A	3/29/50	6/15/51	Signs & Stripes	1,350	1,350
1-7VC158-F	L A-2-1A	5/18/50	Underway	Gr., Pav., Ped. U.P.	1,652,832	1,652,832
7V159	L A-2-1A	5/18/50	8/31/51	Signs, Stripes, Safe. Dev.	*7,000	*7,000
1-14VC101-F	L A-2-1A	5/25/50	9/27/51	O.C.	*332,096	*332,096
1-14VC102-F	L A-2-1A	6/29/50	7/16/51	O.C.	*335,793	*335,793
1-7VC158	L A-2-1A	6/29/50	5/28/51	Lights & Signs	*152,958	*152,958
1-7VC159	L A-2-1A	6/29/50	Underway	Pump Plant & St. Drains	132,536	132,536
1-14VC104-F	L A-2-1A	6/29/50	7/25/51	St.	*337,039	*337,039
51-14VC7	L A-2-1A	9/19/50	3/9/51	Ped. O.C.	*35,360	*35,360
51-14VC11-F	L A-2-1A	11/27/50	Underway	Str.	328,716	328,716
51-7VC25	L A-2-1A	12/23/50	Underway	Lights & Signs	63,203	63,203
51-7VC26	L A-2-1A	12/23/50	9/19/51	Landscape	*48,012	*48,012
7V165	L A-2-1A	1/3/51	Underway	Signs, Stripes, Safety Dev.	10,000	10,000
51-7VC29	L A-2-1A	1/11/51	Underway	Landscape	54,574	54,574
51-14VC13	L A-2-1A	1/19/51	Underway	Str.	333,714	333,714
51-7VC34-F	L A-2-1A	1/26/51	Underway	Gr., Pav., O.C.	958,579	958,579
51-14VC14-F	L A-2-1A	2/20/51	Underway	Str.	349,401	349,401
51-14VC18-F	L A-2-1A	3/20/51	Underway	Str.	294,109	294,109
51-7VC42-P	L A-2-Hill St. LA	4/2/51	Underway	Gr. & Pav.	212,610	212,610
51-14VC51	L A-2-1A	5/23/51	Underway	Landscape	40,355	40,355
51-14VC19-F	L A-2-1A	5/31/51	Underway	Gr. Pav., Strs.	1,740,598	1,740,598
51-14VC21-F	L A-2-1A	6/20/51	Underway	Strs.	964,381	964,381
Total to 6/30/51					\$24,230,631	\$24,230,631

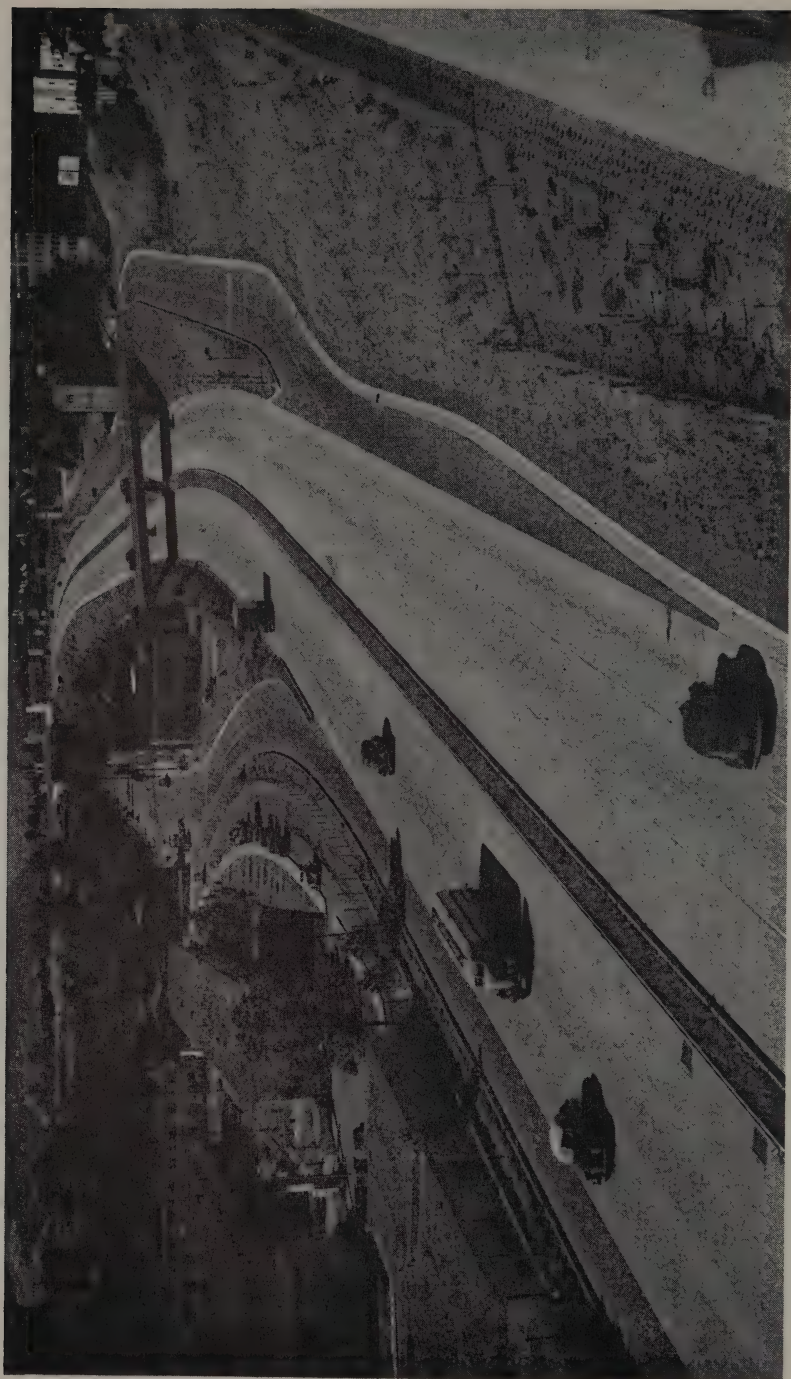
NOTE: * opposite a contract indicates final cost figures not yet available.



Aerial view looking west showing portion of SANTA ANA AND HOLLYWOOD FREEWAYS in City of Los Angeles at Civic Center. The structures in order are Los Angeles Street, Main Street, Spring Street, Broadway, Hill Street, and Grand Avenue. Site of Alameda Street Grade Separation in foreground.



Aerial view showing section of HOLLYWOOD AND SANTA ANA FREEWAYS in vicinity of Civic Center in City of Los Angeles. Junction of Santa Ana and Ramona Freeways in left background beyond Los Angeles River and gas tank. Parking areas in foreground have been made available by the freeway construction.



SANTA ANA FREEWAY showing Fourth Street Overcrossing and First Street Undercrossing in background, Los Angeles County

SANTA ANA FREEWAY

Contract number	Co-Rte-Sec	Location	Miles	Awarded	Completed	Type of work	Construction cost
14VC11	L A-2-L A	At Fourth St.	---	1/ 5/46	6/26/47	O.C.	\$144,927
14VC16	L A-2-L A	At Seventh St.	---	1/11/46	10/ 1/47	O.C.	270,753
7VC16	L A-2-L A	Kearney to Soto Sts.	---	1/14/46	12/ 1/47	Gr. & Pav.	1,495,108
14VC9	L A-2-L A	Over Ramp 4 of Ramona Freeway	1.6	3/29/46	8/11/47	Ret. Walls & O.C.	148,801
7VC21	L A-2-L A	bet. Soto St. & Indiana St.	---	7/15/46	4/ 4/47	St. Drains & Sewers	402,518
14VC15	L A-2-L A	At First St.	---	7/19/46	5/12/47	O.C.	182,515
14VC14	L A-2-L A	At Boyle Ave.	---	7/25/46	8/ 8/47	O.C.	216,076
14VC23	L A-2-L A	At Lorena Ave.	---	12/11/46	10/24/47	O.C.	151,568
14VC24	L A-2-L A	At Olympic Freeway	---	12/30/46	1/23/48	O.C.	319,888
14VC25	L A-2-L A	At Esperanza St. & Indiana St.	---	12/31/46	1/30/48	O.C. & U.C.	259,442
7VC28	L A-2-L A	Kearney to Soto Sts.	1.5	2/ 4/47	2/16/48	Landscape	62,091
14VC28	L A-2-L A	Soto St. Underpass	---	3/ 6/47	1/ 7/48	U.P.	194,788
14VC30	L A-2-L A	At Euclid Ave. & Marietta St.	---	4/29/47	2/26/48	U.C. & Emb.	273,439
7VC37	L A-2-L A	Aliso-Kearney Sts.	---	5/13/47	1/12/48	Gr. & Pav.	205,786
7VC44	L A-2-L A	Aliso St. to Kearney St.	---	7/11/47	4/23/48	Landscape	11,066
7VC59-F	L A-2-L A, D	Soto St. to Eastman Ave.	2.0	2/13/48	4/ 4/49	Gr. & Pav.	1,142,913
0-14VC67	L A-166-A	La Verne Ave. to Eastland Ave.	0.9	9/15/48	4/17/50	Gr. & Pav., U.P.	*1,498,461
0-7VC91	L A-2-L A, D	Aliso St. to Eastman Ave.	---	9/27/48	5/24/49	Lighting	120,773
0-7VC99	L A-2-L A, D	Soto St. to Eastman Ave.	2.0	1/ 7/49	12/ 9/49	Landscape	*51,034
0-7VC106	L A-166, 167-A, A	On Santa Ana Freeway	---	2/ 3/49	4/21/50	Signals & Lights	*100,499
7V142	L A-2-L A, D	Aliso St. to Eastman Ave.	---	3/ 1/49	5/ 3/49	Signals & Lights	6,018
0-14VC84	L A-2-L A	Los Angeles St.	---	4/23/49	8/ 3/50	O.C.	*495,658
1-14VC83-F	L A-2-L A	On North Main St.	---	9/16/49	2/ 9/51	O.C.	*615,105
1-7VC141-F	L A-174-B	Rosecrans Ave. to Orange County Line	3.5	1/ 3/50	12/29/50	Gr. & Pav.	*751,904
7V154	L A-166-A	La Verne Ave. to Eastland Ave.	0.9	1/12/50	5/31/50	Stripes, Signs	7,319
1-7VC143	L A-174-B	Rosecrans to Valley View on Firestone Blvd.	---	1/23/50	12/29/50	Signals	*26,452
1-7VC148-F	Or a-174-A	Los Angeles Co. "Line to 0.2 Mi. Southeast of Euclid Ave.	5.0	3/29/50	1/23/51	Gr. & Pav.	*575,360
1-7VC149-F	Or a-174-A, Ana	0.2 Mi. Southeastly of Euclid Ave. to Rte. 2	2.9	3/31/50	2/16/50	Gr. & Pav.	*372,878
1-7VC15	Or a-174-A, Ana	Lincoln Ave. to Los Angeles St.	---	8/22/50	3/ 7/51	Signals & Lights	*42,064
51-7VC17-F	L A-166-A	Augusta Ave. to 0.1 Mi. Easterly of Rio Hondo	2.3	9/29/50	Underway	Gr. & Pav., Strs.	*1,751,033
51-7VC22	L A-166-A	La Verne Ave. to Eastland Ave.	0.6	11/17/50	6/ 4/51	Landscape	*23,538
51-7VC23-F	L A-2, 166-D, A	Eastman Ave. to 0.1 Mi. Westerly of Atlantic Blvd.	1.1	11/27/50	Underway	Gr., Pav., Pod. U.C., 2 O.C.	*1,188,316
51-7VC41-F	L A-166-A	0.2 Mi. Southeastly of Washington Blvd. to Todd Ave.	---	---	---	---	---
51-7VC48	L A-2, 166-D, A	Eastman Ave. to La Verne Ave. & Eastland Ave. to Todd Ave.	1.5	3/ 9/51	Underway	Gr., Pav., Strs.	*1,549,650
7V178	L A-2-L A	Alameda & Aliso Sts. to Los Angeles R.	---	4/25/51	Underway	Lights & Signs	*72,636
51-14VC22-F	Or a-174, 2-S A, C	Broadway to First St. in Santa Ana	2.8	5/21/51	Underway	Storm Drains	*1,148,700
Total to 6/30/51	---	---	---	6/22/51	Underway	Gr., Pav., Strs.	*2,656,257
							\$18,535,444

NOTE: * opposite a contract indicates final cost figures not yet available.



POMEROY STREET OVERCROSSING on Ramona Freeway
near downtown Los Angeles



EASTERN AVENUE OVERCROSSING across Ramona Freeway in Los Angeles

RAMONA FREEWAY

Contract number	Co-Rte-Sec	Location	Miles	Awarded	Completed	Type of work	Construction cost
67XC5	L A-26-D	Bet. Evergreen Ave. & Atlantic Blvd.	3.8	2/27/33	11/26/34	Gr. & Paye.	\$366,335
67XC6	L A-26-J A	Bet. State St. & Fickett St.	0.6	12/29/33	3/5/35	Gr. & Paye.	86,395
61XC6	L A-26-J A	At Cornell St.		1/3/34	5/17/34	Bridge	29,169
61XC6	L A-26-J A	At Lord St.		1/9/34	6/6/34	Bridge	25,511
61XC7	L A-26-J A	At State St.		1/23/34	6/22/34	Bridge	28,339
61XC9	L A-26-J A	At Marengo St.		1/31/34	9/19/34	Bridge	43,840
67XC7	L A-26-J A	Bet. State St. & Mission Rd.	1.0	2/13/34	4/15/35	Gr. & Paye.	211,941
67XC13	L A-26-J A D	At Garvey Ave.		1/7/35	4/26/35	Water Lines	11,441
67XC18	L A-26-J A D	Bet. Mission Rd. & Atlantic Blvd.	5.9	4/15/35	8/23/35	Landscape	13,531
27XC9	L A-26-J A	Aliso St. at Mission Rd. (States Share of Cost)		4/20/40	4/29/41	Gr. Separation	496,295
414XC4P	L A-26-J A	At Pomeroy, Cornwell & Soto Sts.		7/10/41	6/3/43	Bridges	260,204
47XC5	L A-26-J A D	Bet. Macy St. & Indiana St.	2.0	12/11/41	12/20/43	Gr. & Paye.	280,162
47XC14	L A-26-J A	Aliso St. Viaduct (States Share of Cost)		6/29/42	5/18/43	Walls & Str. Footings	123,900
7XC16	L A-26-J A	Bet. Macy St. & Indiana St.	1.9	4/26/46	7/22/46	Fence	28,773
7VC58	L A-26-J A	Macy St. to Indiana St.	1.8	2/13/48	8/18/48	Landscape	43,635
1-7VC130-F	L A-26-J A D	Evergreen Ave. to East of Helen Dr.	1.8	9/1/49	5/1/51	Gr., Paye, Strs.	*1,361,896
1-7VC147	L A-26-J A D	Macy St. to Helen Dr.		2/9/50	4/13/51	Signs & Lights	*40,952
7VC157	L A-26-J A D	Evergreen Ave. to Helen Dr.		3/23/50	Underway	Signs, Stripes, Signals	8,150
51-7VC38-F	L A-26-Alh, D, J A	0.2 Mi. E. of Helen Dr. to Hellman Ave.	1.5	2/9/51	Underway	Gr., Paye, Strs.	1,658,924
51-14VC20	L A-26-D, J A	On Murphy St.		5/31/51	Underway	Gr., Surf. Strs.	207,397
51-7VC54	L A-26-D, J A, Alh	Helen Dr. to Eighth St.		6/28/51	Underway	Lights & Signs	91,899
51-7VC50-F	L A-26-Alh	Hellman Ave. to Eighth St.	0.9	6/28/51	Underway	Gr., Paye, Brs.	1,422,107
Total to 6/30/51							\$7,140,796

NOTE: * opposite a contract indicates final cost figures not yet available.

ARROYO SECO PARKWAY

Contract number	Co-Rte-Sec	Location	Miles	Awarded	Completed	Type of work	Construction cost
014XC4 07XC9 07XMC3	L.A.-205-SPas L.A.-205-SPas L.A.-205-SPas, Pas	Bet. Arroyo Seco Channel & Grand Ave. Bet. Arroyo Dr. & Meridian Ave. Bet. Fair Oaks Ave. in SPas & Glenarm St. in Pasadena.	0.2	3/ 9/38 6/10/38	11/15/38 8/10/38	Brs. Subway & Appr. Sewers	\$124,996 7,260
014XC8 07XC16 07XC21 014XC23 07XC33	L.A.-205-LA L.A.-205-LA, SPas L.A.-205-LA L.A.-205-LA L.A.-205-LA	At Ave. 60 Bet. Hough St. & Meridian Ave. At Ave. 43 (State's Share of Cost) Near Hough St. Bet. Ave. 22 & Ave. 50	0.8	7/13/38 7/20/38 11/ 7/38 11/14/38 4/ 7/39 4/13/39	1/10/39 3/ 9/39 8/ 9/39 10/25/38 1/11/40 8/21/41	Gr. & Pav. Extend Bridge Gr. & Pav. Bridges Br. Substructure R. C. Bridge Compact Emb.	126, 322 65,062 187,836 29,409 146,007 14,159
07XC39 014XC25 014XC26 27XC2 214XC3	L.A.-205-LA L.A.-205-LA L.A.-205-LA L.A.-205-LA L.A.-205-LA	On Arroyo Seco Parkway (State's Share of Cost) At Ave. 43 Bet. Ave. 50 & Ave. 58 Bet. Ave. 36 & LA River (State's Share of Cost) At Ave. 26		5/13/39 5/29/39 6/26/39 8/10/39 9/25/39	4/ 9/40 2/ 5/40 8/ 1/40 8/ 3/39 4/12/40	Storm Drains, Br. Substructure R. C. Bridge Gr. & Pav. Bridges Channel Extend R. C. Bridge	112,888 51,856 215,748 100,000 46,409
27XC8 27XC9 27XC10 27XC12	L.A.-205-LA L.A.-205-SPas L.A.-205-LA L.A.-205-LA	Near Pasadena Ave. (State's Share of Cost) Gravella St. Bet. Meridian Ave. & Fairview Ave. Near AT&SF Br. N. of Ave. 60 (State's Share of Cost)	0.1	9/28/39 11/ 6/39	2/ 7/40 1/11/40	Retaining Walls Gr. & Surface	4,725 4,067
27XC13 27XC18	L.A.-205-LA L.A.-205-LA, SPas	At Marmon Way (State's Share of Cost) Ave. 58 to Fairview Ave. (State's Share of Cost)		11/15/39 1/10/40	11/17/38 6/ 5/40 7/ 8/40	Storm Drain Bridges Gr. & Pav.	6,003 33,970 166,692
214XC5 214XC4 27XC6 214XC6 214XC8	L.A.-205-SPas L.A.-205-LA L.A.-205-LA L.A.-205-SPas L.A.-205-LA	Under At. & SF & UP RR Tracks near Fremont Ave. Near Ave. 35 Ave. 40 to Ave. 50 (State's Share of Cost) At Meridian Ave. At Ave. 60		3/ 4/40 3/16/40 3/25/40 4/ 9/40 4/25/40	2/ 3/41 12/21/40 6/19/40 8/13/40 8/15/40	Gr. Separations & Appr. Gr. Sep. Superstructure Gr. & Pav. Strs. R. C. Bridge & Appr. R. C. Br. & Appr.	156,553 131,816 101,931 23,766 19,791
27XC32 27XC33 27XC37 27XC38 214XC10	L.A.-205-LA, Pas, SPas L.A.-205-LA L.A.-205-LA L.A.-205-LA L.A.-205-SPas	Bet. San Fernando Rd. & Glenarm St. At Cypress Ave. (State's Share of Cost) Ave. 35 to Ave. 60 (State's Share of Cost) Ave. 35 to Ave. 26 (State's Share of Cost) Under PE Ry. & Fair Oaks Ave.	6.1	5/15/40 5/18/40 6/ 6/40 6/13/40 6/13/40	5/11/42 5/20/40 11/ 1/40 11/20/40 12/27/40	Landscape Ped. Crossing Gr. & Pav. Gr. & Pav. Strs. U.C.	97,628 1,803 101,861 80,175 67,637
27XC37 27XC4 214XC16 214XC18 214XC30	L.A.-205-LA L.A.-205-SPas L.A.-165-LA L.A.-165-LA L.A.-165-LA	Ave. 26 to Ave. 22 (State's Share of Cost) Bet. Grand & Fair Oaks Aves. Over N. Figueroa St. at Park Row Over N. Figueroa St. at Central St. At N. Figueroa & Bishops Rd.	0.7	6/29/40 9/ 4/40 4/ 8/41 7/28/41 7/ 7/41	11/ 1/40 1/15/41 1/10/41 5/29/42 4/28/42	Gr. & Pav. Gr. & Pav. R. C. Bridge Bridge Gr. Separations	83,265 85,788 33,042 63,661 54,872

47X4	L.A.-165-LA	Bet. Adobe St. & Ave. 22 on N. Figueroa		7/19/41	12/31/42	Gr. & Pav.	662,513
41X2C1	L.A.-165-LA	Across Amador St. & Solano Ave.		7/29/41	6/8/42	R.C. Bridges	60,765
41X2C2	L.A.-165-LA	Across LA River & SPRR at Figueroa St.		9/15/41	9/2/43	Bridge-Steel Superstructure	266,038
41X2C10	L.A.-165-LA	Over LA River & SPRR & LA Rwy. at Figueroa St.		3/9/43	6/14/45	Portions-R.C. Superstructure	19,277
14X2C2	L.A.-165-LA	Across LA River & SPRR & LA Rwy. at Figueroa St.		7/23/43	3/24/44	Br. & Appl.	153,781
7X2C5	L.A.-165-LA	On Figueroa St. Bet. Adobe St. & Riverside Dr.		12/29/43	5/25/44	Misc. Work	37,956
7X2C1	L.A.-165-LA	Bet. College St. & Bernard St.	0.3	8/16/46	4/22/47	Gr. & Pav.	310,545
14X2C19	L.A.-165-LA	At Sunset Blvd.		1/28/47	5/14/48	O.C.	521,741
7X2C30	L.A.-165-LA	College St. to Bernard St.	0.3	3/27/47	7/28/47	Landscape	20,019
7X2MC12	L.A.-165-LA	Bernard St. to Ave. 22	1.3	7/23/47	3/19/48	Gr. & Pav.	281,920
7X2MC13	L.A.-165-LA	Bernard St. to Ave. 22		9/22/47	6/25/48	Landscape	19,599
14X2C55-F	L.A.-165-LA	At Alpine St.		5/14/48	12/21/48	O.C.	115,738
0-7VC100	L.A.-205-LA, SPas	Arroyo Seco Parkway	3.2	1/7/49	3/30/49	Chain Link Fence	26,120
0-7VC102	L.A.-165-LA	At Fair Oaks Ave. & State St.		1/12/49	8/19/49	Gr. & Pav. Outer Highway	114,542
0-7VC105P	L.A.-205-Pas, SPas	Orange Grove Ave. & Fair Oaks Ave.	0.2	1/20/49	3/25/49	Gr. & Surface	26,952
0-7VC116	L.A.-205-SPas			5/21/49	7/6/49	Lighting	6,633
7V132	L.A.-205-LA			6/26/49	12/28/49	Safety Devices	43,546
7V150	L.A.-165, 205-LA, Pas, LA, SPas	On Arroyo Seco Parkway		8/23/49	12/21/50	Refuge Areas	55,331
51-14TVC1	L.A.-205-LA	Near Ave. 58		9/29/50	7/6/51	Ped. Bridge	*21,576
51-7VC27	L.A.-165, 205-LA, SPas, Pas	College St. to Glenarm St.		12/22/50	7/12/51	Signs & Lights	*55,672
7V168	L.A.-165, 205-LA, SPas, Pas	College St. to Glenarm St.		1/30/51	Underway	Signals	6,000
Total to 6/30/51							\$5,375,171

NOTE: * opposite a contract indicates final cost figures not yet available.



UNDERCROSSINGS AT FIRST, SECOND AND THIRD STREETS on Harbor Freeway in City of Los Angeles

HARBOR FREEWAY

Contract number	Co-Rte-Sec	Location	Miles	Awarded	Completed	Type of work	Construction cost
14VC17-F	L.A.-165-1A	At Temple St.	-----	10/14/47	12/16/48	U.C.	\$381,026
7V127	L.A.-165-1A	Seventh St. to Wilshire Blvd. (State's Share of Cost)	-----	11/17/48	-----	Connections	121,000
1-14VC05	L.A.-165-1A	At First & Second Sts.	-----	11/18/49	1/22/51	U.C.	453,587
1-14VC103-F	L.A.-165-1A	At Third St.	-----	6/10/50	8/16/51	Structure	*378,857
51-11VC1-F	L.A.-165-1A	At Fourth St.	-----	8/24/50	Underway	Br., Gr., Pavement	545,479
51-11VC12-F	L.A.-165-1A	At Fifth St. & at Sixth St.	-----	12/8/50	Underway	Structures	1,010,779
51-11VC17-F	L.A.-165-1A	At Wilshire Blvd.	-----	3/27/51	Underway	Structures	382,756
52-7VC10-F	L.A.-165-1A	Fourth St. to Temple St.	0.6	6/14/51	Underway	Gr., Pavement, Ret. Walls	710,243
52-7VC12-P	L.A.-165, 2-1A	Temple St. to Third St. & Grand Ave. to Los Angeles St.	-----	6/28/51	Underway	Lights & Signs	114,516
Total to 6/30/51	-----	-----	-----	-----	-----	-----	\$4,997,243

NOTE: * opposite a contract indicates final cost figures not yet available.



FIRST STREET UNDERCROSSING ON HARBOR FREEWAY
in downtown Los Angeles



SECOND STREET UNDERCROSSING ON HARBOR FREEWAY
in Los Angeles

LOS ANGELES RIVER FREEWAY

Contract number	Co-Rte-See	Location	Miles	Awarded	Completed	Type of work	Construction cost
51-7VC-49-F 51-7V-55	L.A-167-LBch L.A-167-LBch	Rte. 60 to 223d St. State St. to 223d St.	2.5	5/31/51 6/28/51	Underway Underway	Gr., Pave, Strs. Signs & Lights	*\$1,507,323 *71,937
Total to 6/30/51							\$1,579,260

NOTE: * opposite a contract indicates final cost figures not yet available.

CABRILLO FREEWAY

Contract number	Co-Rte-See	Location	Miles	Awarded	Completed	Type of work	Construction cost
11AXC3	S.D-77-SD	Bet. Mission Valley Rd. & Linda Vista Housing Project	1.1	2/28/44	3/20/45	Gr., Pave.	\$96,772
14AXC1	S.D-77-SD	At San Diego River in San Diego.		3/22/44	3/26/45	Br.	163,298
14XC6	S.D-77-SD	At Data St., Quince St., & Upas St.		12/3/45	3/7/47	O.C.	175,916
14XC7	S.D-77-SD	Across San Diego River		12/13/45	12/11/46	Br.	193,379
11XC9	S.D-77-SD	Bet. "A" St. & 0.4 Mi. S. of Mission Valley Rd.	2.9	1/11/46	3/13/48	Gr., Pave.	1,506,956
14XC9	S.D-77-SD	Over Balboa Pkwy. at Richmond St.		2/20/46	2/25/47	O.C.	70,152
11XC10	S.D-77-SD, A	Bet. 0.4 Mi. S. of Mission Valley Rd. & 0.5 Mi. N. of San Diego City Limits.	4.1	5/15/46	4/8/48	Gr., Pave.	1,224,610
14XC13	S.D-77-SD	At Friar St. Rd.		6/25/46	6/12/47	O.C.	63,889
14XC15	S.D-77-SD	At University Ave.		6/25/46	8/11/47	O.C.	142,466
14XC14	S.D-77-SD	At Mission Valley Rd.		6/26/46	11/21/47	O.C.	266,133
14XC16	S.D-77-SD	Over Balboa Pkwy. at Pascoe St.		8/8/46	5/14/47	O.C.	83,390
14XC17	S.D-77-SD	On Balboa Pkwy. at Sixth St.		8/8/46	5/22/47	U.C.	120,886
11XC16	S.D-77-SD	Bet. "A" St. & 0.4 Mi. S. of Mission Valley Rd.	2.9	4/21/47	6/6/48	Landscape	79,108
11XC19	S.D-77-SD	Bet. 11th Ave. & "A" St. in San Diego.		8/1/47	11/28/47	Signs, Lights	10,228
11XC43	S.D-77-SD, A	"A" St. to 0.5 Mi. N. of San Diego City Limits.	7.0	8/28/47	5/23/48	Signals	8,471
1-11VC47	S.D-77-SD	"A" St. to Friar's Rd.		8/8/49	4/18/50	Lighting	*89,153
Total to 6/30/51							\$4,295,112

NOTE: * opposite a contract indicates final cost figures not yet available.



TWENTY-THIRD AVENUE STRUCTURES OVER EASTSHORE FREEWAY IN OAKLAND

FEDERAL AID

All contracts which were partially financed with federal-aid primary and urban funds provided by the Federal-aid Highway Act of 1944 were under way or completed before the end of the Fiscal Year 1950.

Similarly, all contracts which were partially financed with federal-aid primary and urban funds provided by the Federal-aid Highway Act of 1948 were either completed or under way at the end of the Fiscal Year 1950.

The status of the program obligating federal-aid for improvements on the Secondary Federal-aid System is discussed further in this report under "Federal-aid Secondary Roads."

Federal-aid Act of 1950

On September 7, 1950, the Federal-aid Highway Act of 1950 became law. This new act authorized an appropriation of the sum of \$500,000,000 for the fiscal year ending June 30, 1952, and a like sum for the fiscal year ending June 30, 1953, for continuing improvements on the Federal-aid Primary, Urban and Secondary Systems in all states.

This act also authorized an appropriation of the sum of \$20,000,000 for the fiscal year ending June 30, 1952, and a like sum for the fiscal year ending June 30, 1953, for improving the forest highway system in the United States, Alaska and Puerto Rico. The effect of these sums on the California Forest Highway System is discussed further in this report on pages 127 to 131 under the caption "National Forest Highways."

The amounts for the three classes of federal-aid projects, exclusive of forest highway funds, apportioned to California for the first year of federal authorization are as follows:

<i>Primary federal-aid projects</i>	<i>Urban highway projects</i>	<i>Secondary federal-aid projects</i>
\$10,244,021	\$10,845,211	\$5,276,855

These funds were apportioned to California by federal formulas utilizing factors of area, population and miles of roads used to transport the U. S. mails, commonly referred to as post roads.

The formula used for apportioning primary federal-aid funds gives equal weight to area, total population and miles of post roads in the State.

The formula used for apportioning urban funds uses the single factor of population of urban places of 5,000 or more in the State.

The formula for apportioning secondary funds is similar to the one used for primary funds, except that "rural population" is substituted for "total population."

The above amounts apportioned to California provide a total of \$26,366,087 for the three classes of projects. Programs designed to obligate the first year's apportionments for the primary and urban federal-aid projects have been submitted to the Bureau of Public Roads. The proposed disposition of federal funds for secondary federal-aid projects is discussed further in the report under "Federal-aid Secondary Roads."

The program for primary federal-aid projects includes 19 contracts and a planning survey project with a total cost of \$22,863,600. By the end of the fiscal year work on 11 of these contracts was either completed or under way at a cost of \$8,408,800, including federal funds in the



DIVIDED FOUR-LANE HIGHWAY on U. S. 40 looking easterly toward Vacaville in Solano County

amount of \$5,702,100. The remaining programed projects are scheduled for early advertisement.

The program for federal-aid urban projects includes 12 contracts and a planning survey project at a total cost of \$21,299,400. Work was either completed or under way at the end of the fiscal year on six of these contracts at a cost of \$10,009,700, including federal funds in the amount of \$5,990,200. The remaining programed projects are scheduled for early advertisement.

Emergency Relief Program

The Federal-aid Highway Act of 1950 contained an item of \$5,000,000 to provide for federal assistance on a 50-percent matching basis in the repair of damage to highways and bridges on primary or secondary federal-aid systems caused by floods, earthquakes or other catastrophes throughout the United States.

Commissioner of Public Roads Thomas H. MacDonald allocated \$1,000,000 from this emergency fund to California to assist the State in restoring the extensive roadway damages caused by the severe storms of November, 1950, which had resulted in the proclamation of a state of emergency by Governor Warren on November 21, 1950.

A program of eight separate projects with a total estimated cost of \$2,290,000 was advertised early in 1951. Five contracts have been awarded, one is pending award, and the remaining two are scheduled for readvertising later this year in an effort to obtain more satisfactory bids.



HOLLYWOOD FREEWAY looking west, Broadway Overcrossing (front) and Hill Street Overcrossing (rear), after removing tunnels through Fort Moore Hill in Los Angeles

APPORTIONMENT OF FEDERAL FUNDS TO CALIFORNIA

Fiscal year ending	Primary Federal Aid	Urban Federal Aid	Emergency Advance Fund	Emergency Relief and Construction Fund	U. S. Public Works Fund	1935 Public Works High- way Fund	Works Program Fund	
							Highways	Grade crossing
June 30, 1917								
June 30, 1918	\$151,063.92							
June 30, 1919	302,127.84							
June 30, 1920	1,980,415.53							
June 30, 1921	2,896,071.77							
June 30, 1922	3,054,675.51							
June 30, 1923	2,462,098.53							
June 30, 1924	1,641,399.02							
June 30, 1925	2,140,463.10							
June 30, 1926	2,487,157.78							
June 30, 1927	2,472,636.00							
June 30, 1928	2,484,706.00							
June 30, 1929	2,483,437.00							
June 30, 1930	2,486,415.00							
June 30, 1931	2,495,345.00							
June 30, 1931	4,179,831.00							
August 31, 1931			\$3,008,827.35					
June 30, 1932	4,181,212.00							
June 30, 1933	4,140,910.53			\$4,667,188.00				
Available on and after July 1, 1933					\$15,607,354.00			
June 30, 1934								
June 30, 1935								
June 30, 1936	4,756,959.00					\$7,932,206.00		
June 30, 1937	4,751,712.00						\$7,747,938.00	\$7,486,362.00
Floods of 1937 and 1938								
June 30, 1938	4,858,220.00							
June 30, 1939	4,735,268.00							
Floods of 1940								
June 30, 1940	3,814,812.00							
June 30, 1941	4,382,966.00							

	Available on and after Nov. 19, 1941.	Available on and after Dec. 1, 1941.	Total
June 30, 1942	\$3,982,125.00		
June 30, 1943	3,989,896.00		
June 30, 1946	9,018,749.00	\$8,122,233.00	
June 30, 1947	9,017,519.00	8,122,233.00	
June 30, 1948	8,897,891.00	8,018,102.00	
June 30, 1950	8,025,813.00	7,216,292.00	
Floods of 1950			
June 30, 1951	8,037,278.00	7,216,292.00	
June 30, 1952	10,244,021.00	10,845,211.00	
Totals	\$130,553,194.53	\$49,540,363.00	\$3,008,827.35
		\$4,607,188.00	\$15,607,354.00
		\$7,332,206.00	\$7,747,928.00
			\$7,486,362.00

APPORTIONMENT OF FEDERAL FUNDS TO CALIFORNIA—Continued

Fiscal year ending	Secondary Federal Aid	Federal Aid Grade Cross- ing Fund	Emergency Relief High- way Fund	Strategic Network Fund	Advance Engineering Fund	Federal Lands Fund under state supervision	Access Road Fund	Flight Strip Fund
June 30, 1917								
June 30, 1918								
June 30, 1919								
June 30, 1920								
June 30, 1921								
June 30, 1922								
June 30, 1923								
June 30, 1924								
June 30, 1925								
June 30, 1926								
June 30, 1927								
June 30, 1928								
June 30, 1929								
June 30, 1930								
June 30, 1931								
August 31, 1931								
June 30, 1932								
June 30, 1933						\$6,841.99		
Available on and after July 1, 1933								
June 30, 1934								
June 30, 1935						272,369.71		
June 30, 1936						232,478.97		
June 30, 1937						151,587.59		
Floods of 1937 and 1938			\$1,644,269.37					
June 30, 1938	\$971,644.00	\$1,874,656.00						
June 30, 1939	947,054.00	1,825,553.00				36,698.89		
Floods of 1940			315,220.63			191,493.67		
June 30, 1940	571,229.00	735,256.00				88,940.66		
June 30, 1941	571,992.00	1,114,363.00				95,238.00		

[illegible]

† Includes \$182,158.65 of Federal Housing Authority funds.

— Includes \$164,195.00 of Federal Housing Authority loans.

NOTE: For actual cash reimbursements made by the Federal Government to the State of California for expenditures incurred by the State refer to Appendix A, Table 4 on page 182.



ALPINE ROAD looking east towards Ladera subdivision entrance, Federal Aid
Secondary project in San Mateo County



COMPLETED FEDERAL AID SECONDARY PROJECT in Riverside County
on Lovekin Road between Blythe and Palo Verde Mesa

COUNTY AND COUNTY COOPERATIVE PROJECTS

Federal-aid Secondary Roads

Activities of the last year relating to federal secondary roads were continued in a manner similar to that set forth in the Fourth Annual Report.

During the past fiscal year, 45 federal-aid secondary contracts were awarded for county road and bridge projects. The cost of these projects, including engineering, was \$6,745,462. During the same period 44 such contracts were completed at a cost of \$5,436,610.

The FAS program was initiated by the Federal-aid Highway Act of 1944, and since that time 245 county road and bridge contracts have been completed or are under way, their cost totaling \$35,886,781.77. These projects involved 143 bridges at an average cost of \$69,586.55 per bridge, and 862.5 miles of road at an average cost of \$30,071.59 per mile.

The following is a tabulation of the status of both state and county federal-aid secondary projects as of June 30, 1951.

	Number of bridges	Length, miles	Total cost	Federal-aid secondary and County Highway Aid Act funds	Other funds
County projects					
Under contract					
	14	113.2	\$3,829,000.77 1,616,263.35	\$2,270,548.47 1,019,072.10	\$1,558,452.30 597,191.25
32 contracts.....			\$5,445,264.12	\$3,289,620.57	\$2,155,643.55
Completed					
	129	749.3	\$22,106,904.58 8,334,613.07	\$18,088,399.48 7,109,175.38	\$4,018,505.10 1,225,437.69
213 contracts.....			\$30,441,517.65	\$25,197,574.86	\$5,243,942.79
County subtotals—245 contracts.....	143	862.5	\$35,886,781.77	\$28,487,195.43	\$7,399,586.34
State projects					
Under contract					
	5	23.1	\$2,180,630.30 652,246.25	\$719,298.00 248,399.87	\$1,461,332.30 403,846.38
9 contracts.....			\$2,832,876.55	\$967,697.87	\$1,865,178.68
Completed					
	7	30.8	\$2,326,065.33 1,703,335.56	\$1,320,688.14 928,988.00	\$1,005,377.19 774,347.56
13 contracts.....			\$4,029,400.89	\$2,249,676.14	\$1,779,724.75
State subtotals—22 contracts.....	12	53.9	\$6,862,277.44 \$260,515.35	\$3,217,374.01 \$248,312.64	\$3,644,903.43 \$12,202.71
Flashing lights—65 installations.....					
Grand totals.....	155	916.4	\$43,009,574.56	\$31,952,882.08	\$11,056,692.48

As of the end of the fiscal year, programs had been submitted to the Bureau of Public Roads, having an estimated total cost of \$51,615,244 and involving improvement to some 1,122 miles of road.

The Federal-aid Highway Act of 1950 became law during this fiscal year. There are three provisions of this act that vary from those set forth in previous federal-aid acts. The legislation specifically directs that the secondary funds be expended on the more rural types of roads within the

system. Most of California's FAS projects have been of this rural type. There is a new requirement that each state highway department must set up a secondary roads department to handle the FAS program. California originated such a department at the beginning of the FAS program after passage of the 1944 Federal-aid Highway Act. The third new provision places responsibility on the counties for maintenance of projects constructed on county roads under the FAS program. Formerly, the Federal-aid Highway Acts made this solely a state responsibility. However, in California, the counties were held responsible by the State by statute and through maintenance agreements, since the State has no authority to maintain county roads. Thus, all three of these new provisions will require practically no change in present operations in California.

After the Federal-aid Highway Act of 1950 became effective, the California Legislature passed the Secondary Highways Act of 1951, which authorized the allocation of $87\frac{1}{2}$ percent of secondary funds to the counties for expenditure on county roads in the Federal-aid Secondary System. This is the same percentage which has been in effect since 1945. This allocation totaled \$4,622,503 for the first of the two fiscal years covered under the Federal-aid Act. The funds are distributed among the counties on the same basis as allocated to the State, namely, average of rural population, area, and mileage of rural post and star routes, with four counties receiving the minimum of one-half of 1 percent. No matching funds were provided to the counties by the State Legislature for the 1950 secondary allocation, and it is required that the county must provide these funds.

During the past year, minor revisions were made in the Federal-aid Secondary System. As of June 30, 1951, this system, as approved by the Commissioner of Public Roads, consisted of 9,278.8 miles, of which 5,597.6 miles are on county roads and 3,681.2 miles are on state highways. This represents an increase of 131.2 miles over that reported a year ago.

System of County Roads Maintained

In compliance with the provisions of Section 2121 of the "Streets and Highways Code," many of the counties of the State submitted revisions of their maintained systems in May of 1951. The total increase of maintained county roads as approved by the Division of Highways was 783.7 miles, and on June 30, 1951, the Director of Public Works certified to the State Controller that the county maintained road system consisted of 67,302.1 miles.

The county primary road system was revised in several counties during the year, and as approved June 30, 1951, consisted of 19,388.4 miles. A county is permitted to revise its mileage of primary roads from time to time, but at no time may the mileage be in excess of 50 percent of the maintained mileage in that county.

Highway Planning Survey Reinventorv

The State continued the policy of offering the services of the Highway Planning Survey to the counties for the purpose of making inventories in the county road system. It is required that the county provide \$2.50 per maintained mile to cover its share of the cost; it being antici-

pated that the balance of the cost will be paid from federal-aid secondary funds set up for highway planning purposes. To date, 16 counties have expressed a desire to participate in the program.

Joint Highway Districts

Under the provisions of the Joint Highway District Act, 27 joint highway districts have been organized within the State.

Section 4 of the Collier-Burns Highway Act of 1947 stipulates that not more than one-half of 1 percent of funds allocated to state highways in each county group (north and south) may be used for state aid in joint highway districts.

At this time, four joint highway districts are active. The present status of these four districts is as follows:

Joint Highway District No. 9: This joint highway district was organized May 28, 1928, to provide for the improvement of the Ocean Shore Highway in Santa Cruz, San Mateo and San Francisco Counties. During the 1931 Session of the Legislature this route was taken into the State Highway System as State Highway 56.

During the past year, contracts were completed as follows: at Frenchman's Creek, between 1.5 miles north and 2.5 miles north of Half Moon Bay, grading and surfacing, at an approximate cost of \$100,000; between one mile south and one-half mile north of Lobitos, grading and surfacing, at an approximate cost of \$240,000; between 2.3 miles south and 1.5 miles south of Davenport, at Respini Creek, grading and surfacing, at an approximate cost of \$126,000. A contract was awarded for grading and surfacing between 0.2 mile north of Lobitos Creek and 0.3 mile north of Canada Verde Creek, at an estimated cost of \$400,000.

To date the State has expended \$2,226,889.75 for construction within this district. The State's contribution, which has averaged approximately \$110,000 per year since 1931, has covered 50 percent of the actual construction cost and all the preliminary engineering and right of way costs.

Joint Highway District No. 10: This joint highway district was organized September 15, 1928, by San Francisco and San Mateo Counties. It is now planned to cover construction of Junipero Serra Boulevard Extension, between San Francisco and Millbrae Avenue in the City of Millbrae, San Mateo County. No state highways are included in this district.

The State has been contributing an annual payment of \$47,500, which represents one-third of the cost, exclusive of preliminary engineering, but including rights of way, to assist in financing the improvement.

Four units have been completed over the years. The fifth unit, between Sneath Road and Crystal Springs Road, is under construction at an estimated cost of \$315,000.

Total contributions by the State amount to \$503,005.66.

Joint Highway District No. 14: This joint highway district was organized December 21, 1929, by Lassen and Modoc Counties. The district originally was comprised of the Susanville-Adin county road and portions each of State Highway Routes 28 and 210 between Adin and the Oregon Line at Tule Lake.

At present the district is active between Susanville and Adin, which is within the limits of FAS Route 988.

The last contracts to be undertaken by this joint highway district are now under construction. The projects will improve 12.8 miles of the

Susanville-Adin road between Grasshopper Valley Ranch and Hayden Hill, at an estimated cost of \$362,500. One contract is being financed as a joint highway district and FAS project, and the other as a joint highway district project. Upon completion of these contracts, the counties have agreed to dissolve the joint highway district.

The State has contributed a total of \$583,633.30 towards construction within the district, at an average annual rate of \$50,000. State funds have amounted to about 40 percent of all moneys expended for the joint construction venture.

Joint Highway District No. 26: This district was organized September 26, 1928, by Alameda and Contra Costa Counties. The major part of the project is on Mountain Boulevard in the City of Oakland. Under Section 527 of the Collier-Burns Highway Act, the route was taken into the State Highway System as State Route 227 and has since been declared a freeway by the State Highway Commission.

Preliminary engineering is being done under the supervision of the Joint Highway District Engineer.

A major project is under construction between Broadway Terrace and Bruns Drive at an estimated cost of \$1,768,122.56, including rights of way. This improvement will develop 1.14 miles of Route 227 to four-lane divided freeway standards. This contract is being handled by the joint highway district.

The State has contributed \$1,375,000 towards financing 50 percent of the construction costs, which include preliminary engineering and rights of way. State contributions have been at the rate of \$300,000 per year, over the past few years.



SAN ANDREAS ROAD, looking west toward Rob Roy and Ocean, Federal Aid Secondary project in Santa Cruz County



GRANT LINE ROAD looking east from Fremont Road, Federal Aid
Secondary project in San Joaquin County

CITY AND CITY COOPERATIVE PROJECTS

Urban Population

Although the decennial census was taken as of April 1, 1950, the final official figures of the population of California had not yet been published by the Bureau of Census at the date of this report. As a result of this delay the apportionment of gas tax revenue to cities for the fiscal year ending June 30, 1951, was based on former population figures. That is, the population as determined by the 1940 federal census with additions for the population in annexed areas or the population as determined by special federal census plus allowances for subsequent annexations. At the time the 1940 federal census was taken the final official figures became available in December, 1940, so that by recalculating the July and October quarterly payment the new population was applied to the apportionment for that entire fiscal year.

When it became apparent that the final figures of the 1950 census would not become available in time for the July, 1951, quarterly payment, legislation was introduced to authorize the use of the preliminary population count for apportioning gas tax revenue to cities until the final population figures were released. The bill contained an urgency clause so that it became effective in time to use the 1951 preliminary count for the July, 1951, apportionment. According to information from the Census Bureau the final official figures should be available by late summer or early fall. These final figures will differ only slightly, if at

all, from the preliminary count and in all cases where the difference occurs will result in an increase over the preliminary count. This increase is due to people who were out of town at the time the canvass was made being counted in some other locality and credit being transferred to their place of residence.

Other legislation of importance to cities is the provision for the use of the population determined by a special federal census for purposes of apportioning gas tax revenue and in lieu tax receipts. A similar statute enacted during World War II contains the provision that it shall expire upon official publication of the 1950 census. There would then be no means for making adjustments where the population of a city had greatly increased for any reason. Since the start of the Korean war a number of cities have already experienced large increases due to the influx of workers. As defense activities are accelerated the increase in population of those cities with war industries will undoubtedly be enormous. There should be some means for determining such increases in population so that there may be a fair and equitable distribution of gas tax revenue to cities on the basis of their population. This new act will provide such a means.

The urban population of California as determined by the 1950 preliminary count amounted to 7,122,593. Increases in population due to annexations of unincorporated territories during the period April 1, 1950, to June 30, 1950, amounted to 6,279, making the total urban population 7,128,872 on July 1, 1950, based on the 1950 preliminary count. During the past fiscal year 116 cities have annexed 401 tracts of land and excluded two areas from incorporated limits. The increase in population due to the annexations as determined by multiplying the number of registered electors residing in such area by three amounted to 19,722. The population residing in the excluded areas was 21 leaving an increase in population during the year due to annexations and exclusions of 19,701. During the same period there was one incorporation, the City of Huron, Fresno County, with a calculated population of 315. The total increase in population during the fiscal year due to annexations and incorporations amounted to 20,016 bringing the total calculated population in cities to 7,148,888.

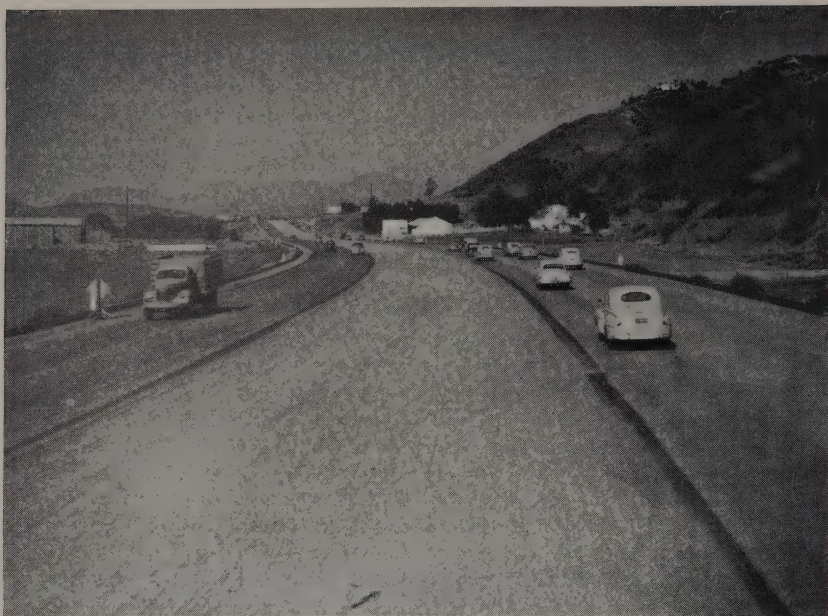
As mentioned above the population in incorporated cities as of April 1, 1950, as determined by the preliminary count is 7,122,593 as compared with a calculated population of 6,898,445 used for purposes of apportionment as of the same date. This is an increase of 224,148 or 3.2 percent as compared with an increase of 51.9 percent for the entire State during the 10-year period. The reason for this large difference in the proportional increase in the population in cities as compared with the State as a whole is due to the determination of the increase in population in various cities during the decennial period by means of a special federal census. This increase as determined by special federal censuses amounted to 1,713,406. From the above it will be seen that most of the growth of the cities had been accounted for before the decennial census of April 1, 1950. This applies only to the total population of all cities. There were many large changes among the individual cities and it is only by means of a decennial census that these inequities and maladjustments can be corrected.

Apportionments of Gas Tax Funds to Cities

During the past year the amount of \$19,329,746.64 was apportioned among the 305 incorporated cities in the State for expenditure on city streets. This is \$1,160,646.69 or 6.4 percent more than apportioned during the preceding fiscal year. In addition to the amount of gas tax revenue apportioned to cities during the fiscal year there remained unexpended from the Fiscal Year 1950 together with savings on budgeted projects constructed during the year the amount of \$8,828,180.42 carried forward for expenditure in 1951, making a total of \$28,157,927.06 available for budgeting during the year. Of the total amount available, the sum of \$23,939,111.26 was budgeted by the cities for expenditure leaving an unbudgeted balance of \$4,218,815.80 for budgeting during the fiscal year ending June 30, 1952. Of the amount budgeted for expenditure during this year \$19,133,759.19 was budgeted for acquisition, construction or improvement and \$4,805,352.07 was budgeted for maintenance of major city streets and secondary city streets. The amount budgeted for maintenance was considerably less than the maximum amount allowable by law for such purpose. This does not mean that the amount allowed by law for maintenance is greatly in excess of the actual need but rather that the cities recognize that the continuing ordinary maintenance of streets is a local obligation and that the gasoline tax which is a state-wide tax paid not only by the local motorist but by motorists all over the State should be used primarily to provide increased facilities for traffic. Many cities use only a portion of the allowable amount of the gas tax apportionment for maintenance purposes, defraying the balance of the cost of maintenance from local revenue, while another large group of cities uses the entire amount of their gas tax apportionment for construction or improvement of major city streets and provide the entire amount required for maintenance from local sources. Cities pursuing such a policy are to be highly commended.

During the past year, plans and specifications for the construction or improvement of major city streets were approved by the department covering 520 projects involving 220 miles of streets at a total estimated cost of \$11,167,500 of gas tax funds. This figure does not include any amounts contributed by other agencies such as the county or from funds authorized by Chapter 20, Statutes of 1946, or from other city funds. This amount also includes the construction of bridges and installation of automatic traffic signals. Expenditures for preliminary surveys and plans and for the acquisition of right of way is in addition to the above amount.

Progress on the expenditure of the one-fourth cent gas tax for state highways within cities was very slow last year. This allocation originally authorized in 1933, was repealed by the Collier-Burns Highway Act of 1947 with the proviso that any amounts allocated or accumulated prior to the effective date of such repeal on December 31, 1947, shall be expended for the purposes for which they were allocated or accumulated. During the past year the sum of \$125,000 was expended by the Department and \$936,000 was expended by the cities making a total expenditure for the year of \$1,061,000. As of June 30, 1951, there remained \$210,000 to be expended by the Department and \$1,585,000 to be expended by the cities. Practically all of this money remains in the two districts of San Francisco and Los Angeles. Seventy percent of the unexpended balance



MISSION VALLEY FREEWAY, a cooperative City, County and Federal Aid
Secondary project in San Diego County

is in the San Francisco District, 28 percent is in the Los Angeles District, and the remaining 2 percent is divided between two other districts. In the other seven districts all of the one-fourth cent for state highways has been expended.

SERVICE AND SUPPLY

In April, 1947, there was established as an administrative function in the Division of Highways Headquarters organization a "Stores" Department for procurement, storage and distribution of supplies and equipment required for state highway operations. During the first years of its organization the Stores Section expanded its field of operations rapidly and during the past year the designation was changed to "Service and Supply" Department, it being felt that this name more clearly identifies the function of the section with its basic concept of rendering service.

Within the Service and Supply Department has been consolidated a complete supply organization including procurement, warehousing, distribution and accounting units. With one warehouse in Sacramento and another in Los Angeles the section has been able to cut materially the time required for delivery of those supplies which are kept in stock.

Actual purchase of commodities is done by the State Purchasing Agent and the Division of Highways' Service and Supply Section makes every effort to uphold the friendly spirit of cooperation which exists between these two state agencies. Procurement practice under this cooperative procedure has proven most satisfactory.

The organization of the Service and Supply Department has been patterned after the report submitted to Congress in 1949 by Mr. Herbert Hoover, Chairman of the Commission on Organization of the Executive Branch of the Government.

A study of Mr. Hoover's report indicates the seven primary phases of supply operations are being performed by the Service and Supply Department, namely as follows:

1. *Specifications* or the task of establishing standards for property to be purchased.
2. *Acquisition* of property by procurement through Purchasing Division of Department of Finance.
3. *Traffic management* or the transporting of property from the point of purchase or storage to the point of need.
4. *Inspection* or insuring adherence of property to purchase specifications.
5. *Property identification* or the task of getting property under a standard system so as to facilitate identification.
6. *Storage and issue* or the storing of necessary reserves of property and their distribution when needed.
7. *Property utilization* or the task of seeing that property is efficiently used and is suitably disposed of when no longer needed.



BOX PALLET storage in Los Angeles warehouse of Service and Supply Department



Lift truck with BOOM ATTACHMENT at Sacramento Warehouse of Service and Supply Department

In addition to the above functions, the Service and Supply Department performs the following additional services:

8. *Standardization* of materials and commodities to effect large scale purchases.

Through committee action in conjunction with other sections of the Division of Highways, standardization has been effected for various commodities such as wearing and replacement parts on heavy road equipment, laboratory and office equipment, stationery items, signs and road sign appurtenances.

9. *Property management* or the control of nonrental equipment, materials, inventories and building maintenance. Maintenance of the Public Works Building in Sacramento alone approximates \$120,000 a year.
10. *Investigation* and analyzation of all commodities used by the Division of Highways.

The department maintains an historical record of rates of usage on all commodities. When the item is adaptable and the rate indicates sufficient usage, it is stocked in the warehouses.

Investigation and research is conducted on various commodities and operations in use by the Division of Highways.

The Service and Supply Department is continuing the preparation of open specifications for the 5,000 items carried in warehouse inventory and the more than 20,000 items which are purchased direct.

An important phase of public relations between the Division of Highways and manufacturers has been developed by inviting the latter's representatives to assist state engineers in preparing specifications and conducting laboratory and field tests. In this manner full cognizance is taken of manufacturers' problems of production with which state engineering force may not be familiar and the final result is a specification that is as fair to the trade as it is to the State. An unusual degree of cooperation has been engendered by this means and interest in highway matters brought intimately to the attention of a large, influential group.

11. *Procurement expeditors.* At times of emergencies the Service and Supply Department is in position to rush supplies to the affected areas from warehouse stock and to expedite the procurement of other materials. The confidence and good will which have been built up with the several districts throughout the State and the Purchasing Division are of great value under such conditions. While all purchases are made by the Purchasing Division of the Department of Finance, in case of emergencies, the Service and Supply Department may act as a procurer and aid to the Purchasing Agent.
12. *The disposal of obsolete and used items.* During the past three years a program has been in force to clean up approximately 300 maintenance stations throughout the State. Many of the items carried in inventory dated back to 1912 when the Division of Highways was first organized and consisted to some degree of items used in the days of hand labor methods of construction, such as mule shoes, lanterns, and horse drawn equipment.
13. *Storage.* Surplus office equipment and dead storage files belonging to various highway departments are stored at the Sacramento warehouse.

A study has been made of microfilming Division of Highways records as compared to warehousing of these dead storage files. This study indicated that, over a 20-year period, the cost of microfilming records would be about one-third greater than the cost of constructing permanent warehouses and storing the complete files. In addition to the cost differential, the warehouse would be available for other storage during the 20-year period of accumulating file material. On the basis of this study, a new warehouse is being constructed at 59th Street and Folsom Boulevard in Sacramento.

14. *Priorities analyzations and enforcement* of federal regulations pertaining to priorities and use of critical materials.

In September, 1950, the Federal Government through the National Production Authority imposed restrictions upon construction and upon the use of certain critical materials. The imposition of these restrictions was gradual and assumed definite lines about February, 1951. By the end of the fiscal year, June 30, 1951, priority regulations on materials and "authority to commence construction" were in full force, affecting practically all highway construction and maintenance operations.

As in other states, the Division of Highways has been made the sole agency responsible to the Bureau of Public Roads for processing applications for all controlled materials needed for highway and street construction in California by state, city, county, toll roads and other highway building agencies. All work in relation to priority regulations for these agencies is being done by the Service and Supply Department.

In order to administer the numerous federal regulations, prepare applications to construct, approve various documents, prepare estimates, and act as a clearing house for information and processing of documents for highway and other road building agencies, it was necessary to expand considerably the engineering and clerical forces of service and supply.

Business Volume and Inventory

Following is a tabulation of Service and Supply business for the fiscal year:

Direct purchase	\$6,651,497
Warehouse purchases	1,682,096
Warehouse disbursements	1,421,980
Inventory as of June 30, 1951	
District accounts 137	977,333
Warehouse accounts 237 and 337	1,405,802
Processing accounts	26,672

Following is a resume of nonrental equipment inventory as of June 30, 1951, representing \$4,139,318:

Funds allocated 1950-51	\$541,000.00
Funds expended	530,409.37
Funds reverted	\$10,590.63



GRADE SEPARATION carrying Bayshore Freeway over Alemany Boulevard in the City of San Francisco. On-ramp shown on right.



BRIDGE on Ridge Route (U. S. 99) in Piru Gorge in Los Angeles County



STUDY IN LIGHTS AND SHADOWS on portion of FOUR-LEVEL STRUCTURE at junction of Hollywood, Arroyo Seco and Harbor Freeways in City of Los Angeles

PLANNING

Under the supervision of the Assistant State Highway Engineer, Planning, there are Headquarters' sections covering Budget, Advance Planning, Design, Traffic and the state-wide Highway Planning Survey.

Following are reports on these phases of state highway work for the past fiscal year.

BUDGET

The Budget Section has as its major function the preparation of the annual budget of the Division of Highways for submission by the State Highway Engineer to the Director of Public Works and the California Highway Commission for their consideration and adoption; and, when and as approved by the commission, to exercise those controls necessary to assure adherence to its provisions.

Even under normal conditions it is inherent in the basic controls under which the Division of Highways functions that exact foreknowledge cannot be had of either the actual revenues which will be received or of the actual costs of the operations scheduled for accomplishment. Highway revenues come primarily from highway-user taxes and, thus, depend directly upon the extent of the use of the highways by the motor vehicle owner. Likewise, the major expenditures are for highway construction, the costs of which may vary so rapidly as to be unpredictable beyond the immediate present.

Conditions, both national and international, are far from normal, and are subject to quick and violent changes, so it is inevitable that, between the time of its original preparation for submission to the Highway Commission and the expiration of the fiscal year which it covers, the annual budget requires alteration of many of its items. In consequence, the making of the highway budget is not something to be completed in a single act, but is a continuing process. It calls for constant study and accommodation to the natural changes as well as to the many arbitrary controls such as those on materials, manpower, location, and type of projects. These conditions rigidly limit the field of activities and increase the difficulty of the budgeting and control of available funds.

The Legislature during the past session considered a number of proposals calling for increased revenue for highway purposes, but no affirmative action was taken. Sources of revenue and rates remain practically unchanged. The tax on gasoline accounts for the largest part of highway income, with other material amounts being derived from motor vehicle fees, use fuel tax, transportation tax, and federal aid. Since highway use so definitely determines what the income will be, it is essential in order to intelligently estimate this income that dependable knowledge be had of the current trends of traffic. For this purpose, a continuous study is maintained based upon the comprehensive traffic records developed through many years and kept currently valid by regular monthly traffic counts taken throughout the State.

The budget for the 1951-52 Fiscal Year, now adopted, marks the end of the first five-year period under the Collier-Burns Highway Act. During this period 50 percent of funds available for construction on state highways constituted the minimums to be expended in the several counties in accordance with the fixed formula established by the act. In the budgeting of funds, adequate provision was made to comply with these minimum requirements. For the five-year period beginning with the 1952-53 Fiscal Year, the budget for which is now being prepared, the corresponding minimum expenditure within counties is increased to 55 percent.

The Federal-aid Act of 1950 provided for the allocation of funds to the states for a two-year period. Funds from this source for the first of the two years was included in the 1951-52 budget, and the second year's allocation is being included in the budget for the 1952-53 year. Future federal aid will depend upon further action by Congress.

Buildings and Plants

Definite progress is being made in the program to relieve the critical shortage in buildings and other plant facilities needed to efficiently handle the heavy schedule of work now under way and in preparation of plans for future requirements. The Division of Architecture completed plans for district office buildings in San Bernardino, San Diego, and Marysville. All of these buildings will be under construction during the coming fiscal year and should be ready for occupancy in the summer of 1952. Construction of the Annex to the Public Works Building is progressing satisfactorily with completion scheduled for the summer of 1952.

Building sites have been decided upon for district office buildings in Eureka, Redding, San Luis Obispo, and Bishop, with purchase of the necessary property either made or under negotiation. Construction is going forward on the new Central Maintenance Station in Los Angeles County and the new Shop Building in North Hollywood.

With the exception of ordinary maintenance and minor improvement jobs, the entire building program is being carried out in close cooperation with the Division of Architecture. Their architects are now engaged in the study and preparation of tentative plans for the future district office buildings in Eureka, Redding, Bishop, and Stockton.

DESIGN

The Division of Highways is working towards the completion of designs approximately two years ahead of construction in order that sufficient time may be allowed for right of way negotiations and necessary agreements with railroads and other interests in connection with major projects.

During the year ending June 30, 1951, plans were completed for 660 miles of highway, estimated to cost \$71,108,000. In comparison, the previous year saw the completion of plans for 648 miles of work, estimated to cost \$65,240,000. In addition to this volume of completed work, there are surveys in progress and plans under way for construction of over 1,650 miles of highway estimated to cost several times the amount of work completed during the year.



HIGH STREET OVERHEAD carrying Eastshore Freeway over city streets in Oakland

During this fiscal year period of 1950-51 there was a total of 1,605 preliminary engineering authorizations processed and issued to the 11 districts and the Bridge Department, including project reports and supplemental authorizations. A total of 209 project reports, exclusive of signal and channelization projects, was also reviewed for consideration of features of design.

As a part of the work completed during the year, 240 typical sections were processed, each requiring thorough consideration of the adequacy of the section for the traffic anticipated and to determine that the best materials economically available were selected. The Design Section correlates the comments and recommendations of the several other departments in processing these typical sections. Similar study was given to approximately 327 interchange and intersection designs so that the greatest traffic service, consistent with funds available, might be rendered by the completed project.

The amount of work accomplished and the rapidity with which it has been handled were made possible by the close liaison and cooperation of Headquarters Design Section with District Design Sections. Through frequent contacts of Headquarters design coordinators with the districts, it has been possible to incorporate into plans for pending work those design features proven to be required for the successful operation of a modern highway facility.

Freeways

During the fiscal year ending June 30, 1951, the Design Section reviewed and made recommendations on 50 proposed freeway agreements. Route adoptions and right of way appraisals are also reviewed by the department prior to their approval and release.

Research and Special Studies

Several papers were prepared by the Design Section for presentation at meetings of various national associations, among which were the following: "A Symposium on Highways With a Narrow Median," presented at the Highway Research Board meetings of January 8-12, 1951; "Photogrammetry as Applied to Highway Engineering," presented at the seventeenth annual meeting of the American Society of Photogrammetry held in Washington, D. C., in January, 1951. An article was published in the *California Highways and Public Works* magazine entitled "Traffic Interchange Design." This article has received nation-wide notice.

The Design Section actively participated in a school operated by the Bureau of Public Roads dealing with photogrammetry as applied to highway engineering. Attending this school was personnel from various western states, the Bureau of Public Roads, and other public agencies interested in aerial mapping and highway engineering.

In addition to the above, the Design Section has actively participated in the work of the Institute of Transportation and Traffic Engineering of the University of California.

A specific research problem now being carried on is a truck weight and pavement study sponsored by the Bureau of Public Roads and coordinated by the Design Section with the Materials and Research and Construction Departments taking an active part. This is a long-range study which involves the collection of data in relation to truck weight and pavement conditions at various locations throughout the State. Trucks will be weighed and counted to determine the actual traffic carried by the sections involved and borings will be made to determine the type and condition of pavement. It is hoped these studies will lead to further knowledge in the requirements of structural design of pavements and subgrades.

Hydraulic problems have been of considerable magnitude and the Assistant Engineer of Design in charge of the section devoted to structural design, hydraulics, and special investigations has made several special studies of important drainage problems to assist the districts concerned in development of proper design.

Cooperation With Other Agencies

As in previous years, the Design Department acted as a coordinating agency between the Division of Highways and other state agencies, such as the Division of Beaches and Parks, for whom the construction of road and bridge improvements was undertaken.

In conjunction with the Civil Aeronautics Administration and the Bureau of Public Roads, the Design Section continued to investigate and report on proposed airport improvement projects involving the expenditure of federal funds insofar as those improvements might affect state highways.



EXPRESSWAY DEVELOPMENT ON U. S. 99 through Ripon in
San Joaquin County showing frontage road

Screen Planting and Erosion Control

The Landscape Architects of Headquarters Design Section prepared plans for screen planting and erosion control on numerous highway projects undertaken during the year. Continuous studies and experiments are carried on by this unit to determine the most appropriate type of ground cover for use of various sections of the State.

PLANNING SECTION

The Planning Section's principal functions include: developing a long range planning program; providing the recommended construction program for inclusion in the annual budget; processing project reports that initiate the authorization for proceeding with surveys and preparation of construction plans; coordinating the planning efforts of the Division of Highways with those of other agencies; and coordinating the steps attending route adoptions, freeway declarations and the public relations involved therein. In addition, this section is frequently called upon to prepare special reports providing information on many highway problems as requested by the State Highway Engineer, the Director of Public Works, the California Highway Commission or the California Legislature.



BELMONT AVENUE PEDESTRIAN OVERCROSSING on Hollywood Freeway in City of Los Angeles. Bonnie Brae Overcrossing in background.

Long Range Planning

The basic principle underlying the endeavors of the Division of Highways to consistently provide for traffic requirements on its 14,000-mile system of highways calls for dependence on the value of long range advance planning. The advantages of formulating advance planning programs and of continually revising them as conditions change especially obtains when considering California's serious problem of correcting the impressive total of its critical deficiencies on state highways with limited and inadequate annual revenues. The responsibility of processing such planning programs is a function of the Planning Section and occupies a large part of its operation. Tentative programs are developed for five-year periods, within which the relative importance of projects can be readily analyzed. They become the guide for initiating surveys and plans well in advance of probable rights of way and construction authorizations and for an orderly determination of annual budgets. They represent the result of recommendations originating with submissions by the districts and then combed by the various headquarters departments in joint conference. Similar procedure is repeated in the department's function of processing the recommendations for the annual construction program for inclusion in budgets, at which time there must be final adjustments in former tentative planning data and in determinations of extent of proposals that will fall within the limitations of available funds. Fluctuating prices of labor and materials have necessitated frequent revisions in planning program data and also cause changes in subsequent construction programs during the fiscal year in which construction is scheduled.

Project Reports

One of the major activities of the Planning Section is processing project reports from inception of a project to the stage when design is started. This work is effecting unusual efficiency in planning and budgeting. The reports are authorized when planning program information indicates near future construction authorization may be expected. They are prepared in the district and show all the information and data that should be considered in determining where, when, how, and why an improvement project is necessary. They are reviewed at Headquarters where analysis by the various departments is coordinated by the Planning Section after field review of the projects. The conclusions, subject to the approval of the State Highway Engineer, provide the basis for orderly development of surveys and plans on all those projects justified for early construction programing. Aerial mapping at this stage of project development has provided exhibits useful at that time and in subsequent steps, especially on freeway projects.

Freeways

Special attention to freeways during the planning stage carries out the California Highway Commission's policy that local interests concerned be informed on the features of the new type of highway. The Commission requires the city and county governing bodies be given opportunity to have a hearing regarding proposed new routings. The districts handle preliminary contacts with local authorities. The negotiations for public hearings with the Commission, if requested by local



EXPRESSWAY DEVELOPMENT ON U. S. 99 in Bakersfield showing storage lane provision in dividing strip for left-turning movement.

government, are arranged through the Planning Section. Technical and pertinent information regarding the problems of each freeway project are furnished by the Planning Engineer in cooperation with the District Engineer, who attend public hearings, with the Commission.

During the fiscal year, 25 sections of freeways totaling 145.8 miles were added to the freeway system by freeway declarations of the California Highway Commission, bringing the total declared freeway mileage to 1,670 miles. In only one case was a formal public hearing required, an indication of the fine understanding and cooperation of the local people in establishing this modern highway type. It calls attention to the excellent results of efforts of the districts, the Division of Highways, and the California Highway Commission to work informally with local authorities during preliminary planning stages.

Consummating freeway agreements with the local governments is another step in coordination made through the Planning Section. There are a number of agreements pending execution on projects in which there has been general agreement. There also are several freeway situations still subject to further study and understandings with the local interests before route adoptions are recommended to the California Highway Commission for action.

Studies for Legislation

Reports processed by the Planning Section were made to the 1951 Session of the Legislature on bills introduced for additions to the State Highway System and also on legislative resolutions requesting information on the feasibility of proposals involving the State. There were 27 routes, aggregating about 942 miles of roads, proposed by the road inclusion bills presented to the Legislature.

Other Proposals Studied

Innumerable proposals, suggestions, and inquiries regarding new and existing routes, plans for their development, and budgets are received from individuals, and from public and semipublic organizations. Preparation of reports and replies on these subjects occupies considerable time of Planning Section personnel. Such work frequently extends into careful and comprehensive discussion and analysis, important for administrative as well as engineering use.

Liaison With Other Agencies

A prominent part of the section's function continues to be close and agreeable liaison with agencies whose interests and activities are related to state highway planning and budgeting. Much of this interrelated work appertains to the impact of flood control, reclamation, utilization of water resources, harbor and beach development and soil conservation on highway facilities. Projects under development by the United States Bureau of Reclamation, U. S. Corps of Engineers, the State Reclamation Board, Division of Water Resources, flood control and water conservation districts often require relocation or alteration of state highways. There is a mutual advantage to each agency involved, and particularly to the Division of Highways, in having advance information on proposed plans. Information is obtained from personal contacts, public notices, public hearings and reports. Insofar as practicable it is beneficial to clear



KERN RIVER BRIDGE near Isabella in Kern County. Reconstruction of this route financed by U. S. Engineers because of construction of the Isabella Dam.



DIVIDED FOUR-LANE construction showing chain link fence in dividing strip south of Redding on U. S. 99 in Shasta County



TRAFFIC ON JIBBOOM STREET OVERHEAD in City of Sacramento

all steps through one representative in the department. During the year major reconstruction has been under way on seven routes affected by such works, besides smaller adjustments of highway crossings of canals.

National Forest Highways

The State's participation in formulating programs and agreements with the U. S. Bureau of Public Roads and the U. S. Forest Service on National Forest Highway matters is coordinated in the Planning Section by a member who follows all steps of subsequent procedure. Annual apportionment of federal funds for the past fiscal year was about \$2,850,000, but authorizations for construction have covered only part of the apportionment. Excessive bid prices on projects advertised late in the fiscal year caused deferment of proposed improvement with exception of surfacing on projects graded under a previous program. Directives that forest highway funds be considered only on projects of benefit to national defense, give timber access roads on the forest highway system preferred attention. The Bureau of Public Roads is making surveys and plans on several routes that will so qualify and will augment the prepared plans on approved programs in preparation for construction to the extent appropriations may be authorized by Congress.

Tabulation of the present status of the California National Forest Highway System is included in this report on pages 128 to 131.

NATIONAL FOREST HIGHWAY SYSTEM IN CALIFORNIA, JUNE, 1951

No.	Name	Termini	National Forest	Length, miles
Forest Highways on State Highway System				
1	Crescent City	Forest Boundary near South Fork-Oregon Line	Siskiyou, Six Rivers	33.6
2	Klamath River	Weitchpec-Mouth of Shasta River	Klamath, Six Rivers	133.0
3	Trinity River	Junction City-Horse Summit	Trinity, Six Rivers	63.5
4	Peanut-Van Duzen	Peanut-West Forest Boundary	Trinity, Six Rivers	34.0
5	Douglas City-Peanut	Douglas City-Peanut	Trinity	30.6
6	Beegum-Peanut	Beegum-Peanut	Trinity	22.0
10	Weed-Medicine Lake	U. S. 99 near Weed-North Forest Boundary	Shasta	14.9
11	Lava Beds	Spaulding Ranch-Near Stronghold	Modoc	30.6
12	Howard Gulch	Canby-Spaulding Ranch	Modoc	17.1
13	Alturas-Cedarville	West Forest Boundary-Cedarville	Modoc	10.2
14	Redding-Alturas	Adin-Canby	Modoc	21.8
15	Redding-Alturas	Southeast Corner National Forest-Near Burney	Shasta	3.5
18	Red Bluff-Susanville	12 miles West Mineral-East Forest Boundary	Lassen	36.1
19	Red Bluff-Susanville	Near Coppervale-Susanville	Lassen	15.4
20	Almanor (Sierra Way)	Alamanor Dam-F.H. 22 (Feather River)	Plumas	19.0
21	Deer Creek Meadows	Forest Ranch-Deer Creek Meadows	Lassen	38.0
22	North Fork Feather River	Forest Boundary-Quincy	Plumas	53.4
23	Quincy-Beckwith	Quincy-Beckwith	Plumas	38.3
25	Nevada City-Downieville	North San Juan-Downieville	Tahoe	33.0
26	Yuba Pass	Downieville-Sattley	Tahoe	32.2
27	Sierraville-Hobart	Randolph-1.7 Mi. S. of Sierra-Nevada Co. Line	Tahoe	15.8
28	Calpine-Clio	Calpine-Mohawk Valley	Tahoe-Plumas	7.2
29	Emigrant Gap	Near Blue Canyon-Union Mills	Tahoe	38.7
30	Truckee-Meyers	Truckee Junction-U.S. Route No. 50	El Dorado	42.4
31	Tahoe-Brockway	Tahoe City-Nevada Line	Tahoe	10.8
32	Placerville-Lake Tahoe	Pollock Pines-Nevada Line	El Dorado	46.8
33	Carson Pass	Cook Station-Willow Creek	El Dorado	42.5
34	Woodfords-Minden	Woodfords-Nevada Line	Toiyabe	6.0
35	Ebbetts Pass	Murphy-Woodfords	Stanislaus-Toiyabe	77.0
36	Topaz	2 Mi. S. of Coleville-Nevada Line	Toiyabe	11.5
37	Bridgeport-Coleville	Bridgeport-2 Mi. S. of Coleville	Toiyabe	30.1
38	Sonora Pass	Soulsbyville Junction-U.S. Route No. 395	Stanislaus-Toiyabe	74.0
39	Big Oak Flat (Tioga)	Big Oak Flat-Yosemite Park Boundary	Stanislaus	32.0
40	Tioga	F.H. 41 (U.S. Route 395)-Yosemite N.P. Boundary	Inyo	15.3
41	Red Rock-Bridgeport	Near Convict Creek-Mono Lake	Inyo	34.9
42	Red Rock-Bridgeport	Approx. 5 Mi. N. Inyo-Mono Co. Line-Approx. 1 Mi. W. Rock Creek Inn	Inyo	7.0
43	Luther Pass	Woodfords-U.S. Route 50 Near Meyers	Toiyabe-El Dorado	17.8
45	Mariposa-El Portal	Briceburg-Yosemite Park Boundary	Sierra-Stanislaus	17.8
46	Harmony Ridge	West Forest Boundary-U.S. Route 40	Tahoe	16.7
47	Oakhurst	Yosemite Park Boundary-Oakhurst	Sierra	14.8
48	Huntington Lake	West Forest Boundary-Huntington Lake	Sierra	40.0
49	Kings Canyon	N.P. Boundary-Deer Cove Creek	Sequoia	24.6
50	Fresno-Kings Canyon	Approx. 5 Mi. W. of Deer Park-N.P. Boundary	Sequoia	12.9
51	Hoopa	Willow Creek Junction-Hoopa Indian Reservation	Six Rivers	8.7
52	Glenville-Kernville	West Forest Boundary-East Forest Boundary	Sequoia	13.0
53	Bakersfield-Freeman	Cottonwood Creek-Bodfish	Sequoia	30.1
54	Cuyama	Dutard Ranch-Cuyama River Bridge	Los Padres	15.4
55	Cuesta Pass	Cuesta-San Luis Obispo Creek	Los Padres	3.6
56	San Marcos	Santa Ynez River Bridge-South Forest Boundary	Los Padres	22.8
57	Ridge Route	Castaic-Gorman	Angeles-Los Padres	26.9
58	Arroyo Seco	La Canada-Red Box	Angeles	13.1
61	Angeles Crest	Red Box-Isip Saddle	Angeles	30.0
62	San Gabriel	South Forest Boundary-Isip Saddle	Angeles	32.0
63	Swartout	Isip Saddle-Highway near Phelan	Angeles-San Bernardino	24.0
64	Cajon	Devore-Near Summit	San Bernardino	14.8
65	Bear Valley	Forest Boundary near Arrowhead Springs-Pine Knot	San Bernardino	40.3
66	Fawnskin	F.H. 65-Sylvan Way via Fawnskin	San Bernardino	11.0
67	San Luis Rey	East Forest Boundary-West Forest Boundary	Cleveland	4.0
68	Mill Creek	Pine Knot-South Forest Boundary	San Bernardino	40.0
70	Idyllwild-Desert	West Forest Bdy.-State Highway Route 187	San Bernardino	47.8

NATIONAL FOREST HIGHWAY SYSTEM IN CALIFORNIA, JUNE, 1951—Continued

No.	Name	Termini	National Forest	Length, miles
Forest Highways on State Highway System—Continued				
71	Mt. Lassen	Southwest Boundary Lassen National Park-Mineral	Lassen	8.8
75	Manzanita Lake	Lassen N.P. Boundary-1 Mi. W. of Forest Bdry.	Lassen	4.5
76	Maricopa-Ventura	North Forest Bdry.-South Forest Bdry.	Los Padres	47.8
77	Mt. Shasta-Mt. Lassen	Mt. Shasta City-Northwest Bdry. Lassen N.P.	Shasta-Lassen	91.3
79	Morgan Summit- Morgan Springs	Morgan Summit-Morgan Springs	Lassen	3.8
80	El Cajon-Jucumba	Alpine-La Posta Ranch	Cleveland	27.8
81	Mammoth Lakes	U.S. Route 395-McLeod Lake	Inyo	10.7
82	June Lake	U.S. Route 395-U.S. Route 395 via Silver Lake	Inyo	15.0
84	Morro Bay	East Forest Bdry.-West Forest Bdry.	Los Padres	3.6
91	Bishop Creek	East Forest Boundary-Sabrina Lake	Inyo	11.0
94	East Walker River	South Forest Boundary-Nevada Line	Toiyabe	8.5
Forest Highways Not on State Highway System				
7	Mendocino Pass	Williams Creek-Mouth of Grindstone	Mendocino	54.0
8	Lucerne-Bartlett	Lucerne Junction-Hough Springs	Mendocino	22.7
16	Willow Creek	Adin-Grasshopper Valley	Modoc	30.0
17	Westwood	State Highway No. 29-Forest Highway No. 92	Lassen	18.0
24	Gold Lake	Graeagle-Yuba Pass Junction	Plumas	15.0
44	Aspen Valley	Big Oak Flat Highway Bdry. Yosemite N.P.	Stanislaus	2.0
59	Vincent	Vincent-Barley Flat	Angeles	25.0
60	Mt. Wilson	Red Box-Mt. Wilson	Angeles	5.0
72	Idyllwild	Keen Camp-N. Forest Boundary	San Bernardino	21.1
73	Laguna	Laguna Junction-Cuyamaca Lake	Cleveland	25.4
74	North Fork	Oakhurst Junction-F.H. 48	Sierra	26.5
78	Generals Highway	Sequoia Park-General Grant Grove Kings Canyon N.P.	Sequoia	10.4
83	Pine Crest	F.H. 38 (Sonora Pass)-Pine Crest	Stanislaus	0.9
85	Round Lake	U.S. Route 50-F.H. 33 (Carson Pass)	El Dorado	11.0
86	Blue Lakes	F.H. 33 (Carson Pass)-F.H. 35 (Ebbetts Pass)	El Dorado-Mono- Stanislaus	18.0
87	Clarks Fork	F.H. 35 (Ebbetts Pass)-F.H. 38 (Sonora Pass)	Stanislaus	21.0
88	Clayey River	F.H. 38 (Sonora Pass)-F.H. 39 (Big Oak Flat)	Stanislaus	30.0
89	Rock Creek	U.S. 395-Rock Creek Lake	Inyo	12.0
90	Western Divide	F.H. 52-Quaking Aspen Meadows (State Rte. 127)	Sequoia	39.0
92	Feather Lake	F.H. 77 State Route 29	Lassen	47.0
93	Salmon River	Somes Bar-Sawyers Bar	Klamath	34.0
95	Mt. Pinos	U.S. Route 99-Bitter Creek Saddle	Los Padres	21.3
96	Mosquito Ridge	Foresthill-Beartrap Saddle	Tahoe	19.2
97	Herring Creek	F.H. 38 (Sonora Pass Hwy.)-Herring Creek Camp	Stanislaus	9.5
98	Everitt Memorial Hwy. ...	Mt. Shasta City-Panther Meadow	Shasta	14.8
99	Calaveras Big Trees	F.H. 35-N. Boundary South Grove	Stanislaus	10.5

Forest Highways on the State Highway System	1,922.7 miles
Forest Highways not on the State Highway System	543.3 miles

California Forest Highway System	2,466.0 miles
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CONSTRUCTION AND EXPENDITURES BY THE PUBLIC ROADS ADMINISTRATION ON FOREST HIGHWAY
SYSTEM, STATE OF CALIFORNIA, UP TO AND INCLUDING FISCAL YEAR 1951

Rte. No.	Name of route	Termini of projects	County	National forest	Total length of route, miles	On Federal Forest Highway Projects			
						Miles built or under con- struction	Total expenditures	Federal funds	Cooperative funds
1	Prescent City (U.S. 199)	Forest Boundary near South Fork Oregon Line	Del Norte	Siskiyou, Six Rivers	33.6	26.7	\$1,478,004	\$895,925	\$782,079
2	Klamath River	Weitchpec-Mouth of Shasta River	Humboldt-Siskiyou	Klamath, Six Rivers	133.0	49.7	1,274,753	1,176,191	98,562
3	Trinity River (U.S. 299)	Junction City-Horse Summit	Trinity-Humboldt	Trinity, Six Rivers	63.5	4.8	129,584	129,584	
5	Douglas City-Peanut	Douglas City-Peanut	Trinity	Trinity	30.6	24.9	1,176,781	1,172,483	4,248
7	Mendocino Pass	Williams Creek-Mouth of Grindstone	Mendocino-Glenn	Mendocino	54.0	54.0	451,365	416,365	35,000
8	Lucerne-Bartlett	Lucerne Junction-Hough Springs	Lake	Mendocino	22.7	22.7	54,560	47,341	7,219
10	Weed-Medicine Lake (U.S. 97)	U.S. 99 near Weed-North Forest Boundary	Siskiyou	Shasta	14.9	9.9	99,003	99,003	
11	Lava Beds	Spaulding Ranch-Near Stronghold	Modoc	Modoc	30.6	30.6	703,193	703,193	
12	Howard Gulch	Canby-Spaulding Ranch	Modoc	Modoc	17.1	17.1	494,175	484,093	9,180
13	Alturas-Cedarville	Near West Forest Boundary-Cedarville	Modoc	Modoc	10.2	7.7	117,776	58,888	58,888
14	Redding-Alturas (U.S. 299)	Adin-Canby	Modoc	Modoc	21.8	10.9	214,537	214,537	
18	Red Bluff-Susanville	12 mi. West of Mineral-East Forest Boundary	Tehama-Plumas	Lassen	36.1	24.3	527,634	350,631	177,000
20	Almanor (Sierra Way)	Almanor Dam-F.H. 22 (Feather River)	Plumas	Plumas	19.0	19.0	1,106,877	1,106,877	
21	Deer Creek Meadows	Forest Ranch-Deer Creek Meadows	Butte-Tehama	Lassen	38.0	25.9	912,189	821,548	90,641
22	North Fork Feather River	Forest Boundary-Quincy	Butte-Plumas	Plumas	53.4	5.7	200,700	200,700	
23	Quincy-Beckwourth	Quincy-Beckwourth	Plumas	Plumas	38.3	38.3	835,271	551,619	283,652
25	Nevada City-Downieville	North San Juan-Downieville	Nevada-Yuba-Sierra	Tahoe	33.0	11.7	1,663,773	1,660,613	3,160
26	Yuba Pass	Downieville-Satellite	Sierra	Tahoe	32.2	32.2	757,753	757,753	
27	Sierra City-Hobart	Randolph-17 mi. S. Sierra-Nevada Co. Line	Sierra-Nevada	Tahoe	15.8	15.8	478,286	476,120	2,157
28	Calpine-Clio	Calpine-Mohawk Valley	Sierra-Plumas	Tahoe-Plumas	7.2	7.2	212,544	212,544	
29	Emigrant Gap (U.S. 40)	Near Blue Canyon-Union Mills	Nevada-Placer	Tahoe	38.7	6.9	246,826	246,826	
30	Truckee-Meyers	Truckee Junction-U.S. Route 50	Nevada-Placer	Tahoe	38.7	6.9	246,826	246,826	
31	Tahoe-Brookway	Tahoe City-Nevada Line	El Dorado	El Dorado, Tahoe	42.4	14.5	494,732	457,303	37,429
32	Placerville-Lake Tahoe	Folsom Pines-Nevada Line	Placer	Tahoe	10.8	3.4	298,037	291,603	6,434
33	Carson Pass	Cook's Station-F.H. 43 at Willow Creek	El Dorado	El Dorado	46.8	42.1	2,818,429	2,505,725	312,704
35	Ebbetts Pass	Murphy-Woodfords	Amador-El Dorado	El Dorado	42.5		19,169	19,169	
36	Tonax (U.S. 395)	2 mi. S. Colville-Nevada Line	Calaveras-Alpine	Stanislaus-Toiyabe	77.0	18.1	362,796	215,586	147,210
38	Sonoma Pass	Susiyville Junction-Sonora Junction	Mono	Toiyabe	11.5	11.5	215,037	215,037	800
46	Harmony Ridge	West Forest Boundary-Junction F.H. 29	Tuolumne-Mono	Stanislaus-Toiyabe	74.0	32.5	1,154,691	1,036,449	118,242
47	Oakhurst	Yosemite National Park Boundary-Oakhurst	Nevada-Placer	Tahoe	16.7	3.7	481,038	481,038	
			Mariposa-Madera	Sierra	14.8	14.8	591,435	591,435	

DESIGNATION

STATUS AS OF JUNE 30, 1951

48	Huntington Lake	Sierra	40.0	3.9	536,321	514,817	21,504
50	Fresno-Kings Canyon	Fresno	12.9	1.6	202,025	202,025	
51	Hoopa	Fresno-Tulare					
54	Cuyama	Humboldt	8.7	8.7	274,610	274,610	
56	San Marcus	Santa Barbara	15.4	15.4	351,792	351,792	338,865
57		Santa Barbara	22.8	16.3	392,553	211,791	180,762
60	Mt. Wilson	Los Angeles	5.0	5.0	185,213	185,213	
61	Angeles Crest	Los Angeles	30.0	13.4	887,571	879,277	8,294
62	San Gabriel	Los Angeles	32.0	9.4	1,450,820	278,676	1,172,144
63	Swartout	Los Angeles-San Bernardino					
65	Bear Valley	Angeles San Bernardino	24.0	7.7	500,794	500,794	
68	Mill Creek	San Bernardino	40.3	20.8	1,302,041	690,220	611,821
70	Idyllwild-Desert	San Bernardino	40.0	9.1	2,036,072	2,036,072	
71	Mt. Lassen	Riverside	47.8	37.3	525,564	469,863	55,701
72	Idyllwild	Tehama	8.8	6.0	125,814	100,314	25,000
73	Laguna	Riverside	21.1	20.2	166,520	166,520	
74	North Fork	San Diego	25.4	25.4	435,497	430,497	25,000
75	Manzanita Lake	Madera-Fresno	26.5	4.3	237,570	237,570	
76	Mariopra-Ventura (U.S. 399)	Shasta	4.5	4.5	102,372	102,372	
77	Mt. Shasta-Mt. Lassen	Ventura	43.4	25.7	1,149,576	335,202	814,374
78	Generals Highway	Siskiyou-Shasta	91.3	81.4	1,777,074	1,754,528	22,546
79	Morgan Summit	Tulare	10.4				
81	Mammoth Springs	Tehama	3.8	3.8	115,386	115,386	
83	Pine Crest	Mono	10.7	9.1	231,656	231,656	
84	Morro Bay (U.S. 406)	Tuolumne	0.9	0.9	32,297	32,176	121
87	Clarks Fork	San Luis Obispo	3.6	3.6	128,052	128,052	
90	Western Divide	Tuolumne-Alpine	21.0	9.2	345,462	345,462	
92	Feather Lake	Tulare	39.0	4.6	483,854	483,854	
93	Salmon River	Lassen	47.0	9.2	322,047	322,047	
95	Mt. Pinos	Klamath	34.0	17.0	759,247	688,218	101,029
96	Mosquito Ridge	Los Padres	21.3	6.0	309,229	309,229	
		Tahoe	19.2	19.2	2,129,976	1,915,012	214,964
	Totals		1831.0	978.7	\$37,359,109	\$31,621,509	\$5,737,600
	Surveys				1,201,274	103,007	
	Totals				\$38,663,390	\$32,822,793	\$5,840,607



TRAFFIC DELAY on U. S. 40, Yolo County approach to Tower Bridge across Sacramento River at Sacramento emphasizes need for completion of freeway construction now in progress on this route

TRAFFIC

The organization and functions of the Traffic Department remained generally unchanged throughout the last fiscal year, although the pressure of constantly increasing traffic required slight increases in personnel during this period.

The functions of the Traffic Section, as applicable to Headquarters and the 11 district traffic departments, are as follows: organization and general duties; development of traffic data; accident analysis and research; establishment of geometric standards and traffic service; traffic control; and administration of the Highway Planning Survey. Reports on these functions are given in the following paragraphs.

Organization and General Duties

The Traffic Engineer is responsible for the proper organization of the district traffic departments and the standardization of traffic engineering practices throughout the districts.

General duties of the Traffic Section include the furnishing of data and participation in work on committees of A. A. S. H. O. and Highway Research Board; the preparation of reports on traffic matters for the Legislature, Highway Commission, and Director of Public Works; and the preparation of replies to public correspondence on traffic subjects. In addition the district traffic departments keep in close touch with local organizations and authorities on traffic matters.

Traffic Data

All traffic counting is supervised, including the annual counts at regular stations and special counts, by the Traffic Section. Average daily traffic and other data are developed from the counts, and traffic and accident data are furnished for highway budgets and other highway activities.

Based on the annual traffic census and the monthly counts, estimated travel on the rural State Highway System during the calendar year 1950 amounted to 12,784,839,000 vehicle miles. This constituted an increase of 6.53 percent over 1949 traffic.

The estimated annual travel of freight vehicles was 2,148,294,000 vehicle miles, an increase of 9.16 percent over the 1949 figure. Freight vehicles represented 16.8 percent of the total traffic.

The average daily traffic on the rural State Highway System in 1950 was 2,786 vehicles. Two-lane highways carried an average daily volume of 2,000 vehicles while multilane highways as a group averaged 12,591 vehicles per day.

Accident Analysis and Research

Motor vehicle accident reports on the rural State Highway System, received through the Department of Highway Patrol and the Maintenance Department of the Division of Highways, are analyzed and coded for machine sorting and tabulating to produce various accident statistics. As of 1950, the "one-quarter mile location" has been included in the coding, thus making it possible to isolate accident concentrations by machine.

Accident records on all rural sections, and on urban sections as required, are prepared and kept up to date. Points of recurring accidents and accident prone sections are plotted and the accident patterns analyzed in order to determine causes and initiate corrective measures.

Major studies, generally aimed at improvement of design standards, include the traffic and accident phases of the reports "Symposium on Narrow Medians" and "Shoulders on Primary Highways," both joint products of the Design and Traffic Sections. The first progress report "Median Study," covering the relation of accidents to the type and width of median, was issued during the year.

The yearly report on "Traffic and Highway Engineering" for the National Safety Council Contest is prepared by this section. In this contest states are rated on their highway traffic administration and personnel, on the man-days spent on various traffic studies, on degree of control over cities and counties in traffic regulations, on adherence to national standards, and in the year's accomplishments in highway construction and installation of traffic control measures. Major weight is given for improvements in traffic control devices and regulations. For 1950, California finished first in the class comprising the major states.



TRAFFIC CONGESTION IN PIRU GORGE on Ridge Route (U. S. 99)
before widening to four lanes divided. Los Angeles County.



NORTH MAIN STREET OVERCROSSING OF HOLLYWOOD FREEWAY
in Los Angeles. Looking easterly.

Geometric Standards and Traffic Service

Cooperation with the Design Section is maintained in the establishment of geometric design standards.

Traffic reports and all traffic data for project reports are prepared and all reports are studied from a traffic service standpoint.

Contract change orders and encroachment permits affecting traffic service are reviewed. Day labor work orders and service agreements are reviewed to determine the need and adequacy of the proposed work.

Research projects, affecting the efficiency and safety of traffic flow, completed during the last year included a "Comparison of Lower Case and Capital Letters for Highway Signs."

Traffic Control

The function Traffic Control includes the review of plans, specifications, and estimates for all illumination and traffic signals on the State Highway System. During the year plans were completed for 117 traffic signal installations, 151 lighted intersections, and 468 light standards on new freeways. The total estimated cost of these installations was \$1,733,000.

All proposals for signs, striping, and pavement markings on state highways are reviewed by the Traffic Section. Parking regulations must be approved and speed zone surveys conducted. Orders were prepared for



EXPRESSWAY DEVELOPMENT ON U. S. 99 through Anderson in Shasta County. Frontage road on right.



PAINTED CHANNELIZATION on U. S. 66-91 at turn-off to George Air Force Base in San Bernardino County

establishment of 240 speed zones and the revocation of five existing zones during the year. The mileage of 25-mile per hour zones were reduced by 19.6 miles, 35-mile per hour zones were increased 118.6 miles, and 45-mile per hour zones were increased 16.4 miles.

The year marked improvement and standardization of signing practice, particularly as applied to freeways. A supplement to the "Manual of Warning Signs, Lights and Devices for Use in Performance of Work Upon Highways" was issued during the year.

Highway Planning Survey

Of major significance among the activities of the Highway Planning Survey during the year was the conduct of an over-all traffic and economic study and the preparation of a report on the feasibility of a toll road between San Francisco and Los Angeles as directed by Senate Concurrent Resolution No. 6, 1950 Session of the State Legislature. Thirteen traffic interview stations were utilized to obtain origin and destination information from the traveling public for use in preparing the report.

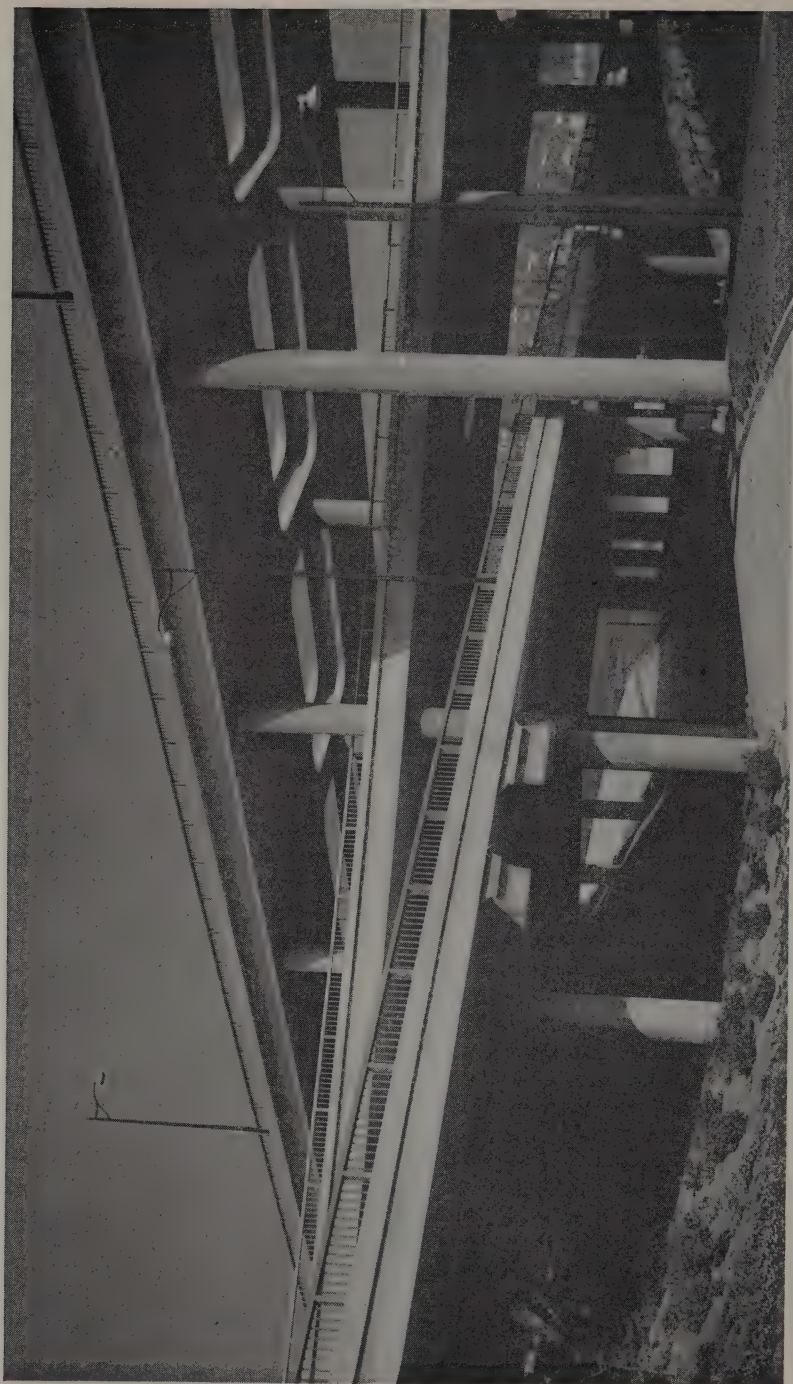
The road inventory which is being prepared cooperatively with the counties is continuing, with field work being completed in Orange, San Diego, San Bernardino, Yuba, and Humboldt Counties. Mapping work is being carried along as field data become available.

Annual corrections to the County Road System maps were made from data submitted by the various counties.

Assistance was rendered the Division of San Francisco Bay Toll Crossings in connection with the traffic study that was conducted to determine the feasibility of the Richmond-San Rafael Bridge project.

A quarterly weighing of trucks was conducted at the same stations which have been used during the annual weighing period of past years. This was done in conjunction with a study of the effects of varying frequencies of axle loads on the road surfaces.

Experimental work has been done toward developing a rapid and inexpensive method of making surveys of gradient and curvature on existing roads for which plans are not available. This is being attempted with a vehicle equipped with an electrically driven gyroscopic compass, a vertical gyroscope, and a special odometer reading to thousandths of a mile. It should be possible to assess the feasibility of this experiment in the coming year.



FOUR-LEVEL STRUCTURE at junction of Hollywood, Arroyo Seco and Harbor
Freeways in City of Los Angeles

BRIDGES

The Bridge Department of the Division of Highways operates under the executive authority of the Assistant State Highway Engineer, Bridges. It employs a total of 425 persons, the majority of whom are in engineering classifications.

During the 1950-51 Fiscal Year, 71 bridge contracts were completed under the control of the Bridge Department at a cost of $11\frac{1}{2}$ million dollars. During the same period, bridges costing over three million dollars were constructed on 36 road contracts administered by the various districts; making the total value of bridges and separation structures completed during the fiscal year over $14\frac{1}{2}$ million dollars. At the end of the fiscal year, the contract value of bridges under construction totaled \$39,220,000. In addition, the Bridge Department assisted various counties, cities, and state agencies in designing and constructing several million dollars worth of structures.

The budget value of the work handled by the Bridge Department during the past fiscal year was nearly double the 16 million dollars for the 1949-50 Fiscal Year; and the budget for the 1951-52 Fiscal Year contains bridge projects amounting to some 30 million dollars.

The following figures indicate the increase of work load on the Bridge Department since July 1, 1949:

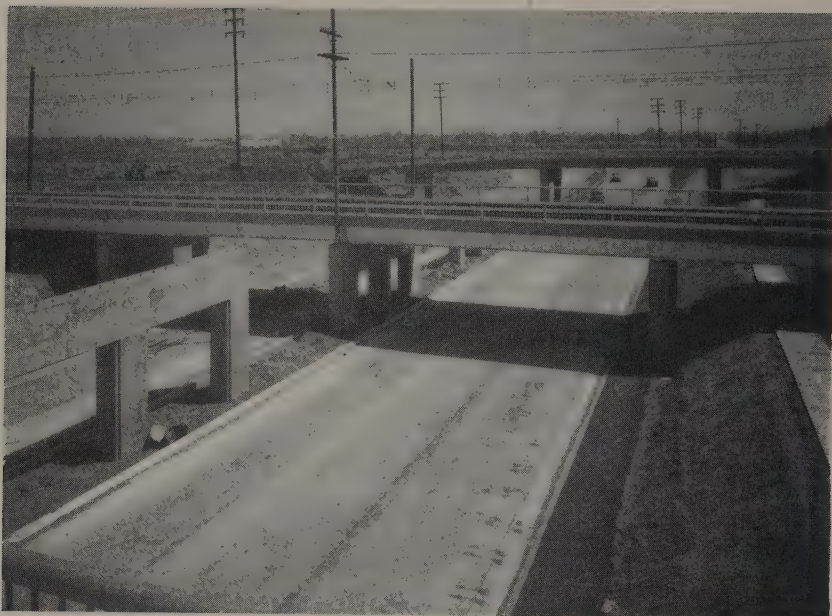
1949-50 Fiscal Year (Budget)	\$16,000,000
1950-51 Fiscal Year (Budget)	\$31,000,000
1951-52 Fiscal Year (Budget)	\$30,000,000

Bridge construction costs increased sharply during the fiscal year. The impact of the Korean situation on the construction industry was evidenced by sudden and unpredictable increases in contractors' bid prices, particularly for steel items. Near the end of the fiscal year, when it looked as though supplies of construction materials might be assured under the Federal Controlled Materials Plan, bridge construction costs stabilized at a level about 32 percent above those prevailing at the beginning of the fiscal period. Major causes of higher costs appear to include such items as wage increases, diversion of labor to government defense projects, slackening of competition between contractors, and increases in the prices of construction materials. No improvement in these conditions is expected in the near future.

Many Important Freeway Bridges Completed

Approximately five-sixths of Bridge Department design work is now devoted to freeway structures which are planned to reduce congestion and speed the flow of traffic in metropolitan areas.

On the Eastshore Freeway, leading south from Oakland, parallel divided highway structures over San Leandro Creek and the Southern Pacific railroad tracks were completed. Completion of several separation structures and railroad underpasses in the vicinity of 42d Avenue in



GRADE SEPARATION STRUCTURES over Rosemead Boulevard at site of
Ramona Freeway Crossing in Los Angeles County



SUNSET BOULEVARD OVERCROSSING ACROSS HOLLYWOOD FREEWAY
in Los Angeles

Oakland has made access to the freeway much easier and safer from the Fruitvale area.

Two congested intersections were eliminated and the first unit of the Bayshore Freeway in the City and County of San Francisco was opened to traffic with the completion of the large elevated grade separation structures at Army and at Alemany Streets, together with the one and one-half-mile-long connecting freeway between. Design was completed for the 9th and 10th Street connection structure on the next unit of the Bayshore Freeway which will be located in downtown San Francisco. This structure, estimated to cost over $3\frac{1}{2}$ million dollars, is the first portion of an 18 million dollar viaduct interchange which will connect the Bayshore Freeway with the San Francisco-Oakland Bay Bridge and with Van Ness Avenue, the main traffic artery leading north out of San Francisco across the Golden Gate Bridge. This interchange is outstanding because, when completed, it will be the largest all-welded steel highway structure in the world. An estimated 61,000,000 pounds of structural steel joined by some 2,500,000 lineal feet (475 miles) of welding will go into its construction.

In the Los Angeles area, numerous grade separation structures on the Hollywood, Santa Ana, Harbor and Ramona Freeways were completed. The Hollywood Freeway structures include separations at North Broadway, Hill Street, Belmont Avenue, and the structure carrying the Hollywood Freeway over the proposed Santa Monica Freeway.

The North Main Street and Los Angeles Street structures in downtown Los Angeles were completed on the Santa Ana Freeway. On the Harbor Freeway, the First and Second Street structures have been finished.

Completed structures on the Ramona Freeway include the Marengo Street On Ramp, and Overcrossings at Herbert and Eastern Avenues.

During the year the largest dollar value for a single contract ever undertaken by the Division of Highways (other than the San Francisco-Oakland Bay Bridge) was advertised and awarded. This $3\frac{1}{2}$ million dollar contract provides for the construction of the new six-lane Colorado Street arch bridge across the Arroyo Seco in Pasadena. Also included in the contract are alterations to the famous existing two-lane Colorado Street structure. In addition, the contract includes two adjacent highway separations. The new Colorado Street Arch will be a major link in the proposed Colorado Freeway.

In the San Diego area, the Main and H Streets Overcrossings on the extension of the Montgomery Freeway from San Diego south to the Mexican border were completed. Eight additional bridges on this freeway are now under construction.

Bridge Progress on Other Highways

Numerous important bridges, not located on freeways, also were completed during the fiscal year. Particularly noteworthy was a steel deck cantilever truss structure on the Mendocino coast across Salmon Creek a few miles south of Fort Bragg. This bridge replaced a long, high, timber trestle which was in a deteriorated and dilapidated condition, and on very dangerous alignment. The new structure spans the ravine on a higher grade and with much better alignment.



SALMON CREEK BRIDGE on State Sign Route 1 in Mendocino County

To provide for the relocation of the state highway which was necessitated due to the construction of the Prado Dam in San Bernardino County, several large bridges were constructed on the new alignment. Also in San Bernardino County, work is now in progress on the I Street Overhead which will eliminate a former dangerous grade crossing used by main line trains of the Santa Fe and Union Pacific Railroads.

Attracting perhaps greater publicity than any other bridge completed during the fiscal year was a relatively small pedestrian bridge in Los Angeles. This structure, located across the Arroyo Seco flood control channel near the Arroyo Seco Parkway, was the first prestressed concrete bridge built on the Pacific Coast and was among the first three or four erected in the United States. Numerous technical journals carried feature articles on this bridge, one of the pioneers of its type. As a landmark in bridge construction in the West, it quite possibly will be the forerunner of other larger prestressed structures. The reason for the considerable professional and technical interest which was attracted to its construction is that prestressed concrete is a radical departure from previous types of conventional concrete design, inasmuch as the reinforcing steel is stressed to the maximum value before the girders are set in place.

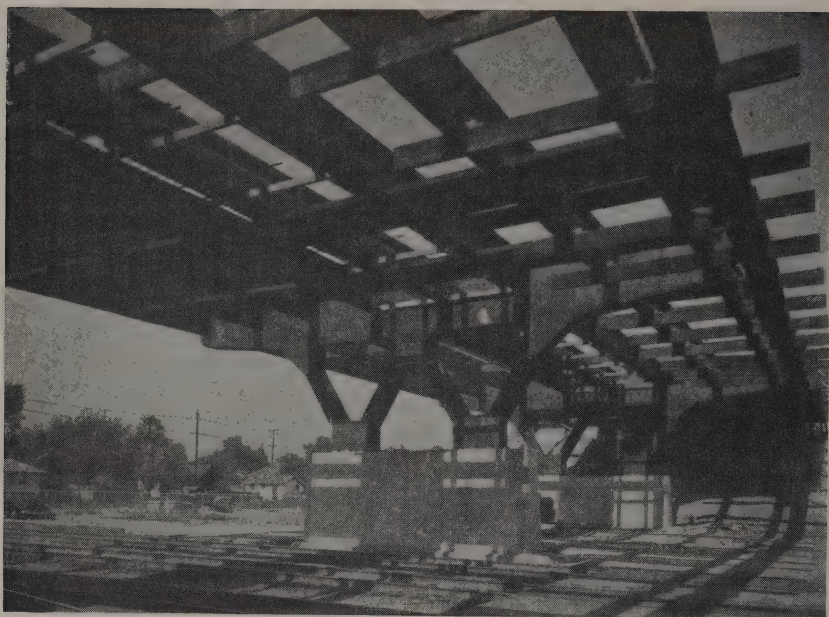
The most important movable span bridge project currently under way is the San Leandro Bay Bridge which connects Alameda with Bay Farm Island and the Oakland Airport. Designs for this structure were completed during the fiscal year, and the contract was awarded. This structure, a single-leaf bascule span, has been designed to permit the passage



Overhead crossings of Atchison, Topeka and Santa Fe Railway on
ROUTE 77 NEAR PRADO DAM, in Riverside County



PRESTRESSED CONCRETE BRIDGE for pedestrian use across Arroyo Seco
Channel in Los Angeles County



RAILROAD OVERHEAD at Fifth Street and I Street on U. S. 66
in City of San Bernardino

of oceangoing vessels which, according to long range plans for development of the Port of Oakland, will some day enter San Leandro Bay. It replaces a rickety old swing span structure originally built in 1881 by one of California's picturesque, early, narrow gauge railroads.

Bridge Maintenance

The Bridge Maintenance Section has continued the periodic inspections of the structural condition and load-carrying capacity of the approximately 4,850 bridges on the State Highway System and the 50 bridges in State Parks. During the 1950-51 Fiscal Year, the cost of maintenance, repairs, and minor replacements, not including painting, totaled \$257,000.

At the beginning of the fiscal year, the number of state highway bridges posted for restricted loads or speeds totaled 231. (Bridges which because of structural condition are not capable of supporting legal loads are known as "posted bridges.") Although a few additional, rapidly deteriorating structures were posted during the year, the total number of posted bridges was reduced to 119 by the end of the fiscal year on June 30, 1951. This reduction by 112 structures during the year was due largely to the elimination of 90 weak, dilapidated bridges along the east shore of the Salton Sea in Imperial County.



SAN JOAQUIN RIVER RIDGE on State Sign Route 140 near
Stevinson in Merced County

In addition to its regular duties, the Maintenance Section, at the request of the U. S. Army, prepared a tabulation of physical and structural bridge data on certain selected state and county roads. Also, for possible use in case of national emergency, data were collected on the safe load-carrying capacity of county bridges on bypass or detour routes around all important bridges on major state routes.

Another function of this section is to examine bridges of public agencies upon formal request from county or municipal officials. Some 135 county and city bridges were investigated. Of these, it was necessary to post 85 for restricted loading. Similar services were provided for the State Division of Forestry and the State Division of Beaches and Parks.

The accompanying tabulation summarizes the number, length, width, and roadway area of all bridges on the State Highway System, including the San Francisco-Oakland Bay Bridge. Structures consisting of several different types of spans, such as steel truss spans with timber trestle approaches, are classified by number and length on the basis of their main spans, but roadway areas have been segregated and appear under the proper headings for the various structural types for each individual component span. Areas of bridges are based on the clear roadway width, including sidewalks.

**BRIDGES ON THE STATE HIGHWAY SYSTEM SEGREGATED AS TO NUMBER,
LENGTH AND AREA BY STRUCTURE TYPE**

(As of June 30, 1951)

Structure type	Number		Length (feet)	Area (square feet)
	1951	1950	1951	1951
Concrete arch.....	277	280	45,471	1,020,201
Concrete girder.....	985	972	152,547	7,610,914
Concrete slab.....	1,599	1,507	85,453	3,103,892
Masonry arch.....	42	43	1,380	29,575
Subtotal concrete and masonry.....	2,903	2,802	284,851	11,764,582
Steel arch.....	4	4	1,618	25,194
Steel plate girder.....	103	97	81,614	1,843,422
Steel stringer.....	259	256	52,346	2,144,559
Steel deck truss.....	32	31	23,387	1,180,461
Steel pony truss.....	47	46	16,281	213,867
Steel through truss.....	92	93	74,953	1,433,239
Suspension.....	3	4	15,334	887,819
CMP multiplate and arch.....	47	46	1,056	35,856
Subtotal steel.....	587	577	266,589	7,764,417
Timber arch.....	6	6	1,434	11,306
Timber stringer.....	950	1,068	70,987	3,254,475
Timber deck truss.....	23	24	7,314	72,996
Timber pony truss.....	12	16	4,095	48,462
Timber through truss.....	7	8	1,758	27,438
Subtotal timber.....	998	1,122	85,588	3,414,677
Total bridges.....	4,488	4,501	637,028 (120 mi.)	22,943,676 (527 acres)
Underpasses.....	162	161	-----	-----
Overheads*.....	102	100	-----	-----
Combined bridge and overhead*.....	33	32	-----	-----
State highway separations*.....	31	28	-----	-----
Road undercrossings*.....	106	97	-----	-----
Road overcrossings.....	112	108	-----	-----
Pedestrian undercrossings*.....	105	102	-----	-----
Pedestrian overcrossings.....	22	21	-----	-----
Cattlepasses*.....	115	126	-----	-----
Tunnels.....	17	17	12,226	-----
Retaining walls.....	10	10	9,738	-----
Miscellaneous.....	34	34	121	9,888
Total structures.....	4,846	4,852	659,120	22,953,746
Railroad grade crossings.....	909	935	-----	-----

* Separations so noted are listed under structure type above.

NOTE: Four underpasses, four overheads and one bridge and overhead also serve as state highway separations, and two tunnels serve both as underpasses and state highway separations.

Bridge Maintenance Painting

The never-ending task of bridge maintenance painting was speeded up considerably under the administration of the recently established Maintenance Painting Section. During the fiscal year, 28 bridges containing 11,100 tons of structural steel were cleaned and painted by contract and under day labor work orders. This large increase in the painting program was made necessary in order to keep abreast of the rapid paint deterioration resulting from deferred bridge painting during World War II.

Comprehensive studies have been initiated in search of improvements of paints, paint type combinations, and application techniques. Full-scale field test applications of eight paint type combinations were made on



TYPICAL OF THE NEW BRIDGES construction on State Sign Route 111
between Niland and Frink in Imperial County



GRAND AVENUE OVERCROSSING ACROSS HOLLYWOOD FREEWAY
in Los Angeles. Looking westerly.



WIDENING OF RAILROAD UNDERPASS at Cordelia in Solano County to provide for four-lane divided expressway on U. S. 40.
Overcrossing on connection to State Sign Route 12 in background.

four structures, and test panels representing 18 promising paint combinations were prepared and are now exposed to the elements. This research is being carried out in cooperation with the Materials and Research Laboratory.

To insure more uniform inspection and conduct of painting work, 120 members of the Bridge Department were given 10 hours of special seminar instructions on field painting. The seminars were held in Sacramento and Los Angeles and covered all phases of the painting of structural steel in bridges.

All steel bridges have now been separately catalogued and card indexed. The complete paint service record for each bridge appears on a special card. In this manner, the current condition and paint history of each bridge can be determined at a glance.

Railroad Grade Separations

As of June 30, 1950, there were 293 railroad grade separations on the State Highway System. Four new separations were completed during the year, making a total of 297 separations as of June 30, 1951.

During the year, contracts were completed for widening or replacing three existing grade separations in addition to the four new structures. Since none of these seven projects eliminated an existing grade crossing, the construction was financed with public funds without railroad participation.

Contracts for 15 railroad grade separations were awarded during the year; and 20 railroad separation projects were still under contract at the end of the year. Two of these 20 projects are railroad-pedestrian separations which were necessitated because of a freeway being built parallel to a railroad.

Eight of the 20 separations now being constructed will eliminate existing grade crossings, 12 are on new alignment, and one is a widening of an existing separation.

Seven of the eight separations eliminating grade crossings are financed with state and federal funds with 10 percent railroad contribution. The eighth separation is financed with state funds, with a railroad contribution of about 21 percent.

Two railroad-county road separations are included in a county federal-aid secondary contract, administered by the State, which was awarded during the fiscal year.

Railroad Grade Crossings

The Bridge Department is responsible for the maintenance of records of all railroad grade crossings on the State Highway System. The department recommends as to the installation of additional protection at grade crossings, and processes all applications to the Public Utilities Commission and agreements with the railroads for construction or alteration of grade crossings.

Differences between the Division of Highways and the major California railroads regarding the apportionment of cost for the alteration of existing grade crossings have been delaying the advertising of a number of highway projects. As a result, the Public Utilities Commission initiated a series of informal conferences between representatives of that Commission, the Division of Highways, and the four major railroads. At the final conference on August 28, 1950, agreement was reached

and a plan of apportionment was adopted by participating parties. While there is still some variance of opinion regarding interpretation, the plan has speeded negotiations on specific projects and has resulted in early agreement in a number of cases where otherwise highway construction would have been delayed.

<i>Railroad grade crossings on state highways</i>	<i>As of 6-30-50</i>	<i>Net changes 1950-51 F.Y.</i>	<i>As of 6-30-51</i>
Main and branch lines *-----	669	—12	657
Spur and other tracks-----	266	— 3	263
Total -----	935	—15	920

* Includes crossings of private railroads.

The decreased number of crossings is due primarily to abandonment of several railroad spur and logging tracks.

<i>Railroad-state highway grade crossing protection</i>	<i>As of 6-30-50</i>	<i>As of 6-30-51</i>
Flashing lights and automatic gates-----	5	6
Flashing lights -----	135	145
Wigwags -----	237	238
Traffic lights at intersection of road and railroad with highway -----	55	55
Total automatic protection-----	432	444
Manual gates -----	8	8
Flagmen -----	16	16
Total manual protection-----	24	24



NEW RIVER BRIDGE on State Sign Route 111 North of Brawley in Imperial County



SAN FELIPE CREEK BRIDGE on State Sign Route 78 west of Kane Springs
in Imperial County

Federal Aid Secondary Bridges

The over-all Federal-aid Secondary Highway construction program for improvement to county roads is discussed elsewhere in this report. However, it should be noted that some 20 FAS bridge contracts for the construction of 24 bridges were under way during the year at an approximate cost of \$3 million. On these contracts the counties designed and prepared plans on 11 of the projects and construction engineering was furnished by the counties on nine of the contracts. This construction work was carried on in 13 different counties under direct supervision of State highway engineers.

Many of the counties are expanding their engineering departments and are becoming increasingly well qualified and technically competent to handle their own engineering work in connection with the FAS bridges. Incidentally, one of the objectives of the FAS program has been to promote the development of the county highway engineering staffs in order that they may handle their own engineering work as well as to improve the standards under which their construction is performed. The FAS program in California has produced some very beneficial results in this respect.

Planning for Future Projects

Before bridge design plans can be prepared, it is necessary to make preliminary surveys and foundation explorations at bridge sites. Numerous conferences, negotiations, and correspondence must be carried on with other agencies. Close liaison must be maintained with the several highway districts, and with city and county authorities as advance studies, plans, and estimates must be furnished to these agencies. These contacts are necessary to permit the most economical type of structure to be selected and to permit the final geometric design, grade, and alignment to be adjusted and determined prior to initiating the detailed design of a structure. Otherwise, major changes in grade or alignment may become necessary after design has been started, with the result that much valuable design time may be lost due to the necessity for redesigning the structure.

To prevent the loss of engineering manpower and to speed up and correlate all contacts with other agencies, a special Advance Bridge Planning Section was established during the year. This section handles preliminary layouts and economic studies and is directly responsible for the engineering surveys which must be made at each bridge site.

During the year, some 234 reports on bridge surveys at various sites, covering projects in the 1950-51, 1951-52 and 1952-53 Fiscal Years, were completed. The estimated cost of bridges to be constructed at these various sites and on which preliminary information has been collected during the fiscal year is in excess of \$40,000,000.

In connection with bridge site surveys, special emphasis has been focused on obtaining more accurate and complete data on foundation materials. The specially trained engineering geologists continued their foundation explorations at proposed bridge sites and were also actively engaged in testing and improving the new drilling and test-loading equipment which was described in the Fourth Annual Report. During the three years the equipment has been in operation, the engineering geologists have made more than 8,000 individual test borings totaling over 40,000 lineal feet. Nearly 60,000 undisturbed soil samples have been taken and tested for various physical criteria. Tests have been conducted to measure load-carrying capacities of soils proposed for footing foundations and other tests have been made at each site where it appears pile foundations will be required. During the past 18 months, 12 full-scale pile load tests were conducted on bridge construction projects. About one-half of all the above activities were conducted during the past fiscal year.

Refraction seismic equipment was tested and used on three bridge foundation studies during the past year. This method of exploration offers favorable prospects for such studies, and tests are continuing.

Studies for Purchase of San Mateo-Hayward and Dumbarton Toll Bridges

At the request of the California Toll Bridge Authority, studies were continued during the year in connection with the contemplated purchase of the privately owned San Mateo-Hayward and Dumbarton toll bridges. Members of the Bridge Maintenance Section examined in detail the structural condition of these bridges, and extensive economic studies regarding the desirability of purchase of the structures were completed

or brought up to date. The findings were summarized in a report which was transmitted to the Toll Bridge Authority. With this report before them, the Toll Bridge Authority by the end of the fiscal year had indicated its intention to accept the offer of the private owners of the two bridges to sell them to the State for $8\frac{1}{4}$ million dollars.

It is planned that the administration of these two bridges, after the State formally acquires ownership, will be handled by the staff of the San Francisco-Oakland Bay Bridge. Insofar as the traveling public is concerned, the principal effect of the transfer of ownership will be a decrease in tolls from an average of 50 cents to 35 cents per passenger car.

Floods

The floods occurring from October through December, 1950, established numerous unprecedented records, both for stage and volume of water, in many streams arising in the Central Sierras. Five bridges on the State Highway System were destroyed, 13 were damaged, and 22 were isolated by erosion or inundation of approaches. Emergency repair work was necessary to open the highways to traffic. The most important highway severed by the loss of a bridge was U. S. 50 between Tracy and Stockton. Here the Paradise Cut Overflow Bridge was completely destroyed by the flood waters. An emergency contract was let for temporary replacement of this structure with a timber trestle, and the highway was opened to traffic six weeks after the bridge was washed out. Detours carried state highway traffic during the intervening period.

To assist in the determination of the expected stream flow as an aid in the design of future bridges, members of the department compiled records of numerous high water marks during the floods. Flood frequency estimates were revised or brought up to date in order that future bridges will be of adequate size to withstand floods without washouts and without being overdesigned.

Department personnel also assisted in studies of failures of bank protection along the Smith, North Yuba, West Walker, Merced and Kern Rivers.

SAN FRANCISCO-OAKLAND BAY BRIDGE AND CARQUINEZ BRIDGE OPERATION AND MAINTENANCE

San Francisco-Oakland Bay Bridge

Traffic and Revenue—The total number of vehicles which crossed the San Francisco-Oakland Bay Bridge between July 1, 1950, and June 30, 1951, was 29,672,520. This was a new high record and amounted to a gain of 6.1 percent as compared to the 27,966,514 of the preceding fiscal year. The daily average for the year was 81,295 vehicles.

Other previous traffic records were broken in August, 1950, with an average of 85,310 vehicles per day; and a new record for a single day's traffic was made on June 15, 1951, when a total of 96,717 vehicles crossed the bridge.

A total of 17,896,426 toll-paying interurban train and bus passengers crossed the bridge during the year, a decrease of 6.33 percent in comparison with the record of the preceding year.

The revenue derived from vehicular tolls, interurban train passenger tolls, rents, interest and miscellaneous services (exclusive of collections for roadside and tow services) was \$9,289,771.52. This was an increase of \$547,508.53 as compared with the previous fiscal year.

No changes in toll rates were made during the year.

Financing—Bond retirements during the year totaled \$8,478,000, of which \$2,375,000 represented bonds maturing on September 1, 1950, and on March 1, 1951; and \$6,103,000 represented serial bonds called in advance of their maturity dates. The bonded indebtedness at the end of the fiscal year was \$11,362,000, after giving effect to the retirements of March 1, 1951.

Bridge Maintenance—The bridge painting crew consisted of two foremen, six leadingmen, and an average of 46 painters, two laborers, and four highway equipment operator-laborers, which represented a decrease of about 13 percent below the crew of the previous fiscal year. A considerable number of painters left the bridge during the year to accept more remunerative employment elsewhere, and only limited success was achieved in obtaining replacements for these men.

On both the West Bay and the East Bay crossings, the major activity of the paint crews was the painting of the upper and lower deck floor systems and the webs of the main bridge trusses. A minor activity was the sandblasting and painting of the sprinkler system under Harbor Pier 24 in San Francisco, which is a permanent installation solely for the protection of the bridge in the event of fire on the harbor pier. The Painting Department also assisted District IV by sandblasting and painting the Funston Avenue Tunnel in San Francisco.

A new electric air compressor, with a capacity of 230 cubic feet per minute was installed at Pier W7 for use in paint crew operations. A 60 cubic feet per minute air compressor was also installed on the boat "Active" for use in maintenance work at the lower levels where the installation of air lines from larger compressors at the bridge deck level would not be warranted.

The program of constructing tracks and scaffolds for the painting of the under side of the upper deck was continued during the year by contract. Under one contract, completed on June 4, 1951, two upper-deck travelers and 2,320 feet of trackage were installed on the West Bay crossing at a total cost of \$41,738.55; the second contract, approved on May 4, 1951, provides for the installation of 1,150 feet of trackage on the spans on the curve at Yerba Buena Island. Work on this contract was in progress before the end of the fiscal year and is estimated to cost about \$22,700.

The total amount expended on general paint maintenance was \$355,968.24, exclusive of the contract work mentioned in the preceding paragraph.

The continued increase in the volume of vehicular traffic made it necessary to maintain emergency services at a high level. The emergency fleet consisted of five tow trucks, four emergency pickup trucks operated during peak hours, and a fire truck. An important item in maintaining the efficiency and mobility of the emergency service department has been the two-way frequency-modulated radio telephone system which has now been in use on the bridge for about three years.

Structure Maintenance—A contract was entered into and completed in the spring of 1951 for revisions and additions to the sprinkler system on Harbor Pier 24 which were necessitated because of alterations to the pier. The cost of this work was \$1,300.

Traffic Studies—As in previous years, semiannual traffic counts of bridge vehicular traffic were made on Sunday and Monday, July 16 and 17, 1950, and on Sunday and Monday, January 14 and 15, 1951. Special counts and other traffic studies were made as specific circumstances required.

Toll Collection—The toll registration equipment installed in the passenger lanes during the previous fiscal year proved to be satisfactory and well justified, particularly from the control and auditing viewpoint. Installation of similar equipment in the truck lanes had not been completed at the end of the fiscal year because of extremely slow delivery of certain items essential to its operation.

Accounts Audited—The San Francisco-Oakland Bay Bridge accounts for the fiscal year ended February 28, 1951, were audited and found to be in good order.

Tabulations—Data on bridge traffic, revenues, and finances are shown in the accompanying tabulations (Tables I to IV, inclusive).

TABLE I

SAN FRANCISCO-OAKLAND BAY BRIDGE—EXPENSE OF MAINTENANCE AND OPERATION

Fiscal Year July 1, 1950, to June 30, 1951

Administration expense.....	\$39,724.20	
Supervising engineer and staff (maintenance).....	38,909.15	
Bridge structure, maintenance and repair.....	14,588.08	
Painting, maintenance and repair.....	355,968.24	
Roadway, fire and tow service.....	132,385.68	
Electrical energy, power and light.....	15,900.00	
Electrical and signal, maintenance and repair.....	65,534.04	
Administration building, maintenance and repair.....	12,859.99	
Roadway, maintenance and repair.....	45,658.85	
Shop and garage.....	31,088.56	
Toll collection.....	417,435.49	
Accounting office, staff and supplies.....	97,654.88	
Auditing.....	1,680.26	
Printing.....	14,738.58	
Traffic engineering.....	10,270.28	
		\$1,294,696.28
Insurance.....		
Bridge structure and physical damage.....	\$114,510.28	
Bonding and burglary.....	189.59	
Compensation.....	5,797.28	
Retirement.....	75,954.68	
		196,451.83
Suspense items to be rebilled or transferred.....	\$1,047.40	
		1,047.40
Work Order 1-15TC4, painting scaffolds (Funds from previous fiscal year).....	\$41,738.55	
Work Order 51-15TC1, sprinklers, Pier 24.....	1,300.00	
		43,038.55
Total.....		\$1,535,234.06

TABLE II
SAN FRANCISCO-OAKLAND BAY BRIDGE—FINANCIAL AND REVENUE ACCOUNT

Revenue		
	Fiscal Year July 1, 1950 to June 30, 1951	Nov. 12, 1936 to June 30, 1951
Traffic tolls.....	\$8,898,768.78	\$92,089,396.84
Train passenger tolls.....	191,259.72	4,968,846.29
Total toll revenue.....	\$9,090,028.50	\$97,058,243.13
Rents from concessions.....	172,062.57	1,580,238.43
Investment and profit, reserve and maturity fund investments.....	27,191.80	831,275.02
Interest on time deposits.....	.00	37,806.79
Over and short account.....	458.65	4,893.75
	\$9,289,771.52	\$99,512,457.12
Commute suspense.....	946.00	8,596.00
Scrip suspense.....	841.00	8,752.80
Damage claim recovery suspense revenue.....	.00	50,000.10
	\$9,291,558.52	\$99,579,806.02
Balance June 30, 1950.....	7,327,877.07	.00
	\$16,619,435.59	\$99,579,806.02
Disbursements		
Interest paid on outstanding bonds.....	\$356,840.00	\$26,101,361.52
Bonds redeemed.....	8,478,000.00	61,178,000.00
Redemption premium on bonds.....	136,140.00	4,354,355.00
C. T. B. A. expense.....	.00	153,478.68
Special legal expense.....	.00	25,000.00
Fiscal agents' expense.....	27,076.98	312,447.63
Transfer from American Trust Company (refinancing).....	.00	—107,643.26
Registration, paying and collection agents' expense.....	7,370.08	130,023.85
Use and occupancy insurance.....	.00	225,794.01
Counterfeits, mutilated coins and uncollectibles.....	26.37	1,647.85
From construction fund.....	.00	—429,166.67
Miscellaneous revenue adjustments.....	.00	20,525.25
Damage repair.....	50,500.10	50,500.10
	\$9,055,953.53	\$92,016,323.96
Funds on hand June 30, 1951		
Accounts receivable.....	\$148,771.76	\$148,771.76
Cashier's revenue fund.....	73,909.92	73,909.92
Cashier's change fund.....	25,000.00	25,000.00
	\$247,681.68	\$247,681.68
Funds in hands of fiscal agents		
Anglo California National Bank.....	\$1,725,840.80	\$1,725,840.80
Bank of America, N. T. & S. A.	1,589,959.58	1,589,959.58
	\$3,315,800.38	\$3,315,800.38
Investments		
2½ percent treasury bonds.....	\$4,000,000.00	\$4,000,000.00
Total funds on hand June 30, 1951.....	\$7,563,482.06	\$7,563,482.06
	\$16,619,435.59	\$99,579,806.02

TABLE III
SAN FRANCISCO-OAKLAND BAY BRIDGE—CONSOLIDATED BALANCE SHEET
AS OF JUNE 30, 1951

Assets			
Current assets			
Cash (available)		\$73,909.92	
Cash (change fund)		25,000.00	
Construction fund (State Treasury)		39,506.12	
Toll revenue fund (fiscal and subfiscal agents)			
Anglo California National Bank		1,725,840.80	
Bank of America, N. T. & S. A.		1,589,959.58	
Investments			
2½ percent U. S. Treasury bonds		4,000,000.00	
Premium paid		29,750.00	
Accrued interest		15,062.56	
Accounts receivable		148,771.76	
Credit account and lease deposits		45,168.00	
			\$7,692,968.74
Fixed assets			
Investment in bridge (vehicular)		\$54,768,809.10	
Investment in bridge (interurban)		18,318,305.81	
Investment in bridge (Port of Oakland overhead)		443,508.44	
Investment in bridge (approaches)		6,288,550.41	
Investment in bridge (improvement in facilities)		435,355.50	
		\$80,254,529.26	
Retirement of fixed assets			
Vehicular	\$106,766.06		
Interurban	3,399,003.31	—3,505,769.37	
			\$76,748,759.89
Deferred charges			
Prepaid use and occupancy insurance			2,266.86
Total assets			\$84,443,995.49
Liabilities and Excess			
Fixed liabilities			
Bonded debt			
Serial revenue, 2 percent		\$11,362,000.00	
			\$11,362,000.00
Deferred liabilities			
Scrip suspense		\$8,752.80	
Commute suspense		8,596.00	
Accrued interest on bonds, 2 percent		75,335.00	
Accrued expenses		153.00	
			\$92,836.80
Construction fund			39,506.12
Liability to State Highway Fund for approaches			6,288,550.41
Liability for credit account and lease deposits			45,168.00
Total liabilities			\$17,828,061.33
Excess of assets over liabilities			66,615,934.16
			\$84,443,995.49

TABLE IV
SAN FRANCISCO-OAKLAND BAY BRIDGE—CLASSIFICATION OF VEHICLES

Period	Automobiles, automobile trailers, and light commercial vehicles		Busses	Trucks and truck trailers	Motorcycles and triars	Total toll vehicles	Free vehicles	Total vehicles
	Cash toll	Commutes						
November 12, 1936 to June 30, 1949.....	182,223,069	21,160,215	5,237,446	14,494,829	686,216	223,801,775	11,741,942	235,543,717
July 1, 1949 to June 30, 1950.....	22,317,314	2,315,244	412,029	2,111,727	54,205	27,210,519	755,965	27,966,514
July, 1950.....	2,072,246	171,479	34,326	192,895	4,698	2,475,644	66,219	2,541,863
August, 1950.....	2,117,182	189,670	36,393	218,819	4,970	2,567,034	77,587	2,644,621
September, 1950.....	2,043,344	179,232	33,668	196,520	4,737	2,457,501	70,084	2,527,585
October, 1950.....	1,967,953	220,020	34,653	206,651	4,057	2,433,334	76,046	2,509,380
November, 1950.....	1,874,616	218,626	36,369	194,352	3,363	2,327,326	73,495	2,400,821
December, 1950.....	1,927,454	191,640	37,344	189,187	2,931	2,345,556	76,888	2,425,444
January, 1951.....	1,847,285	210,835	37,768	202,111	2,502	2,300,501	84,204	2,384,705
February, 1951.....	1,732,511	183,186	33,149	185,332	2,699	2,136,877	76,410	2,213,287
March, 1951.....	1,967,197	227,640	36,496	211,253	3,330	2,445,916	89,396	2,535,312
April, 1951.....	1,871,969	216,688	36,046	195,804	3,606	2,324,113	85,327	2,409,440
May, 1951.....	1,965,257	224,848	38,867	207,358	3,908	2,443,238	90,692	2,533,930
June, 1951.....	2,023,159	188,593	37,561	203,048	4,336	2,456,697	89,525	2,546,132
Totals—July 1, 1950 to June 30, 1951.....	23,413,173	2,422,367	432,640	2,403,330	45,137	28,716,647	955,873	29,672,520
Totals since opening of bridge on November 12, 1936.....	227,953,556	25,867,826	6,082,115	19,009,886	785,558	279,728,941	13,453,810	293,182,751

Carquinez Bridge

Maintenance—As in previous years, structural maintenance including the maintenance of the marine and aerial signals on Carquinez Bridge was continued under the jurisdiction of the San Francisco-Oakland Bay Bridge organization. The physical damage insurance premiums on both Carquinez and Antioch Bridges were included under the Carquinez Bridge maintenance work order. Roadway maintenance was handled by District X.

The principal item of maintenance during the year was the continuing painting of the bridge structure. During most of the year the painting crew consisted of one foreman, one leadingman, and six painters.

Because of navigation requirements, it is necessary to maintain a 24-hour watchman service at the bridge in order to keep navigation lights on at all necessary times and to operate fog signals whenever required.

The total maintenance cost during the year, including physical damage insurance on Carquinez Bridge and on Antioch Bridge, was \$93,456.52 paid from the State Highway Fund.

The major item financed under the Carquinez Bridge Revenue Account was the repair of the bridge fenders at Antioch Bridge on which a total of \$29,214.84 was expended during the fiscal year.

Tabulations—Data on the maintenance expenses at Carquinez Bridge and on expenditures from the Carquinez Bridge Revenue Account are furnished in the appended tabulations (Tables V and VI).

TABLE V
CARQUINEZ BRIDGE—* MAINTENANCE EXPENDITURES, STATE HIGHWAY FUND
July 1, 1950, to June 30, 1951

Administration, engineering and accounting	\$3,458.81
Marine and aerial signals	10,482.72
Bridge structure	611.27
Painting	51,378.06
Building maintenance	5,885.82
All risk insurance, Carquinez Bridge	15,840.00
All risk insurance, Antioch Bridge	5,799.84
Total	\$93,456.52

* Including Antioch Bridge all risk insurance.

TABLE VI
CARQUINEZ BRIDGE REVENUE ACCOUNT

Balance June 30, 1950	\$45,121.47
Expenditures	
Work Order COF-14, Bridge repair, Antioch	\$941.12
Work Order COFC-5, Bridge fenders, Antioch	29,214.84
Work Order COF-15, Navigation lights, Carquinez	22.82
Total expenditures	30,178.78
June 30, 1951, balance available for future work orders	\$14,942.69

PUBLIC RELATIONS AND PERSONNEL

During the Fiscal Year 1950-51 the Personnel Department was reorganized and new duties were assigned which made it advisable to change the designation to "Public Relations and Personnel." The most important single revision has been the regrouping of all public relations activities so that responsibility for them rests in this one department.

This reorganized department, which is under the supervision of an Assistant State Highway Engineer, is divided into four sections: Public Relations, Personnel Management, Personnel Training, and Safety Education.

PUBLIC RELATIONS

During the past year the efforts of this section have been expended primarily on expansion of public information service.

Illustrated articles have been prepared detailing highway developments throughout the State and explaining various actions of the Highway Commission and the Division of Highways. Such articles, together with pertinent cuts and news releases, have been made available to the public and an effort has been made to give them as wide circulation as possible.

Informative talks concerning highway problems have been presented by various members of the department. Some of these have been general in nature, while others have dealt with problems at specific locations.

Coordination of public relations activities carried on by the various districts has progressed and procedures are being established for the handling of such work. A library of informational material, including an increasing number of visual aids, is being developed and will be of more help as it is expanded.

PERSONNEL MANAGEMENT

Recruiting

The critical shortage of engineering personnel which has existed for several years was aggravated by the increased demand for such employees by industry after the start of the Korean War. As a result, the Division became increasingly short of engineers, particularly in the beginning professional grades. To alleviate this situation, an intensive nation-wide recruitment program was carried on in cooperation with the State Personnel Board. Members of this section, aided by district employees, visited various colleges in California and explained the advantages of work with the Division of Highways to as many students as could be reached. In addition, all accredited engineering schools throughout the country were contacted and arrangements made to give the examination for Junior Civil Engineer on all campuses where students were interested.

The examination for Junior Civil Engineer which was given on March 3, 1951, attracted applications from over 1,800 people throughout the nation, of whom about 1,400 actually took the examination. The eligible list which was established consisted of 927 names. About 310 of these were already working for the Division in lower classes or as Junior Civil Engineers under temporary authorization and were certified immediately. Approximately 160 additional eligibles have been appointed or have accepted employment to report later in 1951. This will bring the number of certifications up to over half the total eligibles. As this did not fill our requirements, another examination was given on June 30th, which resulted in a list of 373 names. Even if half of these eventually are certified, additional employees in this class will be required, so intensive recruiting activity will be continued.

Shortages of various types of clerical help continued and considerable effort was devoted to recruiting to fill these vacancies.

Appointments and Separations

On July 1, 1949, the Division had a total of 7,259 employees which had increased by July 1, 1950, to 7,482. On July 1, 1951, the total was up to 8,279, distributed as follows:

Engineering employees	3,481
Maintenance employees	2,839
Right of way employees	216
Equipment employees	376
Accounting, clerical, etc.	1,367
Total	8,279

The increasing volume of personnel transactions is indicated by the following tabulation:

	1949	1950
Civil service appointments	2,181	2,440
Temporary authorization appointments	745	1,195
Separations (principally resignations)	1,797	1,660

Disciplinary Actions

A total of 16 employees were dismissed during 1950, including two permanent employees, 11 temporary authorization employees, and three limited-term employees. Only 11 probationers were rejected. In addition two employees received disciplinary demotions and 13 employees received disciplinary suspension for periods of less than 30 days.

Retirement

During 1950, 71 Division of Highways employees retired.

PERSONNEL TRAINING

Coordination of all Division of Highways training activities on a state-wide basis has progressed considerably during the past year, and it is planned to place continued emphasis on this program.

Conferences or short courses on various subjects, such as highway soils problems and intersection design, have been held at several key locations

in cooperation with the Institute of Transportation and Traffic Engineering of the University of California. At some of these the material has been presented by I. T. T. E. staff members, at others the instructors or lecturers have been employees of the Division of Highways, and in some cases outside experts in the particular field involved have been used.

Special courses of varying lengths have been given wherever they have been considered necessary to meet a specific need or demonstrate new techniques. The most comprehensive course of this type given during the past year was a two-week course on the application of photogrammetry to highway location. This course was given in Sacramento in April of this year in cooperation with the U. S. Bureau of Public Roads, with a total attendance of 36. Of these, 23 were from the Division of Highways, including representatives of all districts, nine from the U. S. Bureau of Public Roads, three from the Arizona Highway Department, and one from the California Division of Water Resources.

Facilities provided by standard educational institutions have been used wherever possible, as have the general courses administered for all state employees by the State Personnel Board.

In addition to the various training activities carried on by the Division, many study groups have been initiated by the employees themselves. Papers presented at such groups have been reproduced and given state-wide distribution so as to extend their benefits to as many employees as possible.

During this year the veterans on-the-job training program has been continued, but the total number of employees enrolled has decreased from 50 to 35.

SAFETY EDUCATION

Active support was given by the Division in the field of public traffic safety through the Safety Section by providing speakers, teachers, and discussion leaders together with visual educational equipment to driver and driver-teacher instruction groups, to service clubs, civic groups, and to other state departmental conferences and study groups. Active cooperation was given to the Governor's Traffic Safety Conference by the provision of discussion leaders and panel members. All district safety supervisors as well as the Headquarters Section participated in this conference.

The value of the Division's employee safety program was again recorded this year in figures showing a continued drop in accident frequency or the number of lost-time injury accidents per million man-hours of work. There has been a 25 percent decrease in frequency in the last five years, and a 48 percent drop in 10 years of the program.

For the calendar year 1950 the frequency was 25.59, an 18.7 percent drop under the previous year. This is the greatest yearly reduction for any year of record.

For the six-months period January-July, 1951, the frequency of 25.14 was below that of the year 1950. The effective value of the employment of full-time safety supervisors in the districts is demonstrated by this progressively improved record.

Special emphasis was given to study of the state motor vehicle accident problem during the year. Members of the Division served on the State Employees Accident Prevention Committee and its Executive Committee. In the Division, the problem was carefully studied and an extensive program of motor vehicle driver education put under way. Division of Highways motor vehicle drivers were examined by use of portable testing equipment and given driving problems to determine their ability and possible need of training.

The effect of this driver training program is shown in the improvement of the motor vehicle accident frequency of 1.29 for the year 1950, 1.18 for the first quarter of 1951, and 1.12 for the six-month period January through June, 1951. Motor vehicle accident frequency is the number of recordable or chargeable accidents against Division of Highways drivers per 100,000 miles of vehicle travel.

RIGHT OF WAY

The right of way function was greatly expanded during the 1950-51 Fiscal Year, during which period the largest volume of work in the history of the department both from the standpoint of number of transactions and dollars and cents volume was handled.

In-training Program

During the early part of the fiscal year a large number of new Junior Real Property Agents were employed. In this classification young college graduates are taken into the right of way organization and during the first two years of their employment while they are handling duties of lesser importance they are given a full two-years of in-training educational instruction in every phase of right of way acquisition work.

Right of Way Transactions

During the year 4,598 separate transactions were concluded, 151 through eminent domain proceedings, the balance being negotiated settlements. Of the 151 parcels acquired by condemnation, 53 of the parcels were condemned by mutual consent because it was impractical to clear title through any other procedure.

To complete this number of transactions necessitated the Right of Way Department securing the execution of 8,548 documents and incurring total obligations slightly in excess of $37\frac{1}{2}$ million dollars, and actual expenditures of 33 million dollars. A total of 5,352 acres was acquired; the average size of the parcel was 1.20 acres. This small average size is due to the fact that the great majority of acquisitions during the year were city lots in connection with the freeway construction program in the metropolitan areas.

Total expenditures during the year for relocation of public utilities under the provision of the Collier-Burns Highway Act, including relocations where the utility had prior rights and the department's overhead costs, amounted to \$3,497,677.

During the year, the Right of Way Department handled the acquisition of 48 parcels for the Public Works Board at a total cost of \$1,668,760. There were also acquired 49 parcels, having a value of \$28,150, for miscellaneous Division of Highways use, such as maintenance station sites, material sites, radio station sites, etc.

The percentage of parcels acquired by condemnation increased during the past year as compared to the several preceding fiscal years.

Total overhead cost per parcel acquired was considerably reduced, because, it is believed, of increased efficiency, improved methods of operation, and a lessening in resistance on the part of property owners. The continued easing in the housing shortage and also the slight easing in the inflationary trends in real estate were contributing factors.

Land Economic Studies

During the past year, land economic studies have been expanded and numerous studies were completed. A large number of new studies were started, all to determine: (1) the economic effect of freeway and expressway construction upon abutting real estate; (2) the effect of freeway construction upon city business districts and the entire city where freeway and expressway by-passes were constructed, removing through traffic from the main business section or from the city itself.

Studies have also been expanded to determine the effect upon roadside business establishments which formerly had unrestricted access to the through lanes of traffic, but which because of the construction of expressways now front upon frontage roads which connect with the through lanes of traffic usually only at intersecting cross roads.

During the year, the first phase of land economic studies dealing with the effect of freeway by-passes on real estate values and business conditions in a special group of cities has been completed. An analysis of all of the economic facts concerning the first six by-passed cities ranging in population from 1,700 to 6,500 has developed the definite conclusion that the diversion of through traffic by freeway and expressway construction is not detrimental but actually of benefit to real estate values and stimulating to business activity.

The studies showed that the magnitude of the benefits to be derived from a freeway or expressway by-pass is in direct proportion to the degree of traffic congestion which had been created previously by the merging of excessive through traffic with local potential shopping traffic.

A summary of the net effect of freeway by-passes on retail business volume in the six cities studied, computed by comparing the average change of the retail business establishments located along the by-passed streets with the sales volume of similar business establishments generally in the same vicinity and during the same period "before" and "after" the completion of the highway improvement, is as follows:

	Popu- lation	No. of businesses by-passed	Net effects on business by type		
			Cafes-bars	Service stations	All others
North					
Sacramento -----	6,016	224	+11.5%	+25.5%	+21.5%
Auburn -----	4,577	74	+5.0%	+21.0%	0.0%
Fairfield -----	3,607	70	-24.4%	-23.0%	+14.1%
Folsom -----	1,706	36	+7.4%	+5.0%	-1.0%
Imperial -----	1,736	21	+1.5%	+2.72%	+0.5%
Escondido -----	6,608	67	+11.95%	+25.6%	+12.7%

It is interesting to note that in Auburn during the first 18 months after the removal of through traffic the city's parking meter income increased slightly over 3 percent and in Fairfield almost 4 percent. The increase in parking meter income in the face of a very heavy reduction in volume of vehicular traffic in the business district is a clear indication that, with the exception of service stations, there is little value to the local community from through traffic, while on the other hand the elimination of the heavy volume of through traffic is an invitation to potential customer traffic to come into the central business district.

In addition to the development of conclusive proof of the beneficial effects of freeway by-passes, studies of the effect of frontage road installa-

tions have been completed at four locations involving 61 retail business establishments.

These studies indicate that there are definite advantages which accrue to a roadside business establishment located on a frontage road as compared to one located on the through lanes of traffic with unrestricted access. Check of increase or decrease in volume of business shows that the disadvantages because of some circuitry of travel created by the separation of the through lanes of traffic from the frontage road are more than offset by the popular manner in which this new type of development is being accepted by the traveling public.

The Land Economics Section has followed through on a large number of individual properties where damages were paid in settlement or where awards were secured under condemnation proceedings for severance or access restrictions. Comparisons have been made of the amount of damages paid on the basis of the fair market value of the property as compared to the subsequent price at which the property has been sold.

The result of these studies indicates that damage estimates which appeared reasonable on a negotiated settlement basis prior to construction of the highway improvement are frequently not borne out, as indicated by the price at which property has been sold after completion of construction.

Considerable factual information has also been developed along this same line to show that the testimony offered in condemnation cases by defendant witnesses as to the damage that would accrue because of the removal of the property from unrestricted access to the through lanes of traffic and placing it on a frontage road is far from proven by the prices received when the property is sold after the improvement has been completed.

A new land economic record system has been installed under which a record of information will be maintained to disclose the effect of construction upon the market value of abutting properties on all completed freeways and expressways. As rapidly as sales take place this system will develop the facts in connection with any effect upon market value of various types of highway improvements.

This land economics information is proving of invaluable aid to the Right of Way Valuation Section in appraising the fair market value of severance and consequential damages, also to the Legal Department in the trial of cases where the major difference of opinion is centered around the damages because of the taking of access rights. All land economic study information is being made available to the public as rapidly as the studies are completed and is proving of great value to public bodies and civic organizations studying highway problems and the problem of traffic congestion in their communities.

Right of Way Staff

To carry on the work of the State Highway Right of Way Department, which has now become the largest land acquisition organization in the nation, requires an organization consisting of the headquarters staff in Sacramento and a complete right of way organization in each of the 11 district offices. The total number of employees in the various phases of the right of way function are 212 Right of Way Agents, 198 Right of Way Engineers, and 187 clerical and stenographic employees, a total of 597.

LEGAL

As noted in previous reports, the amount of legal work arising out of the activities of the Department of Public Works is directly proportional to the size of right-of-way and construction programs. These programs have continued on a much expanded basis, hence, the legal work handled shows a corresponding increase. In addition, during the past year, the work involved in connection with the 1951 Regular Session of the Legislature occupied a great deal of time. Generally speaking, legislation adopted by the 1951 Legislature was helpful to the highway program.

The following tables indicate the volume of work done involving litigation or appearances before administrative bodies. All statistics relate to the Fiscal Year July 1, 1950-June 30, 1951:

CONDEMNATION PROCEEDINGS

Suits filed -----	186	Suits pending -----	316
Parcels involved -----	1,208	Parcels pending -----	2,258
Defendants involved -----	3,596	Trials -----	71
Suits closed -----	101	Uncontested judgments -----	61

OTHER LITIGATION

Cases pending July 1, 1950 -----	125
Cases filed -----	100
Total -----	225
Cases closed -----	98
Cases pending June 30, 1951 -----	127

PROCEEDINGS BEFORE THE PUBLIC UTILITIES COMMISSION

Applications pending July 1, 1950 -----	44
Applications filed -----	27
Orders secured -----	23
Applications pending June 30, 1951 -----	48

In addition to formal applications, numerous formal notices under P. U. C. General Order 88 were filed.

DEPARTMENTAL CLAIMS BEFORE THE STATE BOARD OF CONTROL

	<i>Number of claims</i>	<i>Amount of claims</i>
Pending July 1, 1950 -----	50	\$511,720.24
Filed -----	192	959,264.27
Totals -----	242	\$1,470,984.51
Disposition made -----	105	959,174.96
Pending June 30, 1951 -----	137	\$511,809.55

Some idea of the increase in the volume of work is given by comparisons with the report governing the previous fiscal year.

As will be seen by the number of parcels and the number of defendants involved in the condemnation proceedings filed, each proceeding covers a considerable number of parcels. Likewise, trials usually cover several parcels with different owners, making the average trial one of some magnitude, often with several opposing counsel representing various parties.

The table designated as "Other Litigation" covers a wide variety of cases. Included therein are inverse condemnation proceedings where damage to property by reason of state highway operations is alleged, suits by contractors for additional compensation on construction projects, and a great many cases brought by the State to collect damages to state vehicles or state highway facilities such as bridges, signals, and guard-rails.

The table with reference to the Public Utilities Commission covers matters having to do both with crossings at grade of highways and railroads, and the construction of grade separations. In all instances the approval of the Public Utilities Commission must be obtained as to the engineering details and, in the event of a failure to reach an agreement with the railroad involved as to the apportionment of costs, the applications seek such a determination by that Commission.

A comparison of the claims filed before the State Board of Control with the statistics of a year ago indicates a greatly increased amount of work in that regard. Whereas, during the Fiscal Year 1949-50 79 claims were filed, the number in the past fiscal year was 192.

In addition to the work represented by litigation and the other matters shown in the tables above, what might be called the office work of the legal division has shown a decided increase. Inclusion in the 1947 legislation of provisions imposing liability upon the State, under certain circumstances, for the removal costs of public utility facilities located in public ways has resulted in time-consuming work and numerous conferences with the utility companies concerned. Contractors' claims for additional compensation, particularly in view of difficulties encountered in construction work by reason of shortages of labor and materials, require a considerable amount of study. More recently, the regulations being imposed by the Federal Government on the use of certain materials vital to highway construction furnish additional problems.



TERMINATION OF U. S. 99 at Mexican Border which separates Calxico from Mexicali

ACCOUNTING

Revenue and Expenditures

The following tabulation summarizes the revenues and expenditures of the Division of Highways for the fiscal year ending June 30, 1951, the detail of which is shown in the financial statements included in Appendix A:

Normal revenues for year	\$166,731,705.85
Advance revenue, 1951-1952 Fiscal Year	432,534.98
Total revenue collected	\$167,164,240.83
Budgetary expenditures for year	\$156,210,056.95
Suspense and deferred charges	3,455,755.28
Expenditures on 1951-1952 Fiscal Year contracts	1,032,313.07
Total expenditures	\$160,698,125.30

Cash Resources and Obligations

On June 30, 1951 the cash balance in the State Highway Fund was \$64,560,797.85. Of this amount only \$40,959,374.64 was available for expenditure on state highways as indicated by the following analysis of the fund balance:

Fund balance	\$64,560,797.85
Less approved claims accounted and filed but not yet paid by State Controller	11,287,675.04
Available balance	\$53,273,122.81
Unexpended balance of funds available for expenditure on city streets in accordance with Section 194 of the Streets and Highways Code	5,661,130.87
Unexpended county highway funds	864,853.12
Deposits or transfers from other state funds for particular projects not a part of the regular state highway program	5,787,764.18
Available to meet obligations of regular state highway program	\$40,959,374.64

On June 30, 1951 there were obligations outstanding in the form of going state highway construction projects amounting to \$68,578,701.93, and going day labor projects amounting to \$4,206,402.69. Of the contract obligations \$9,571,754.65 represented contracts relating to projects of the 1951-1952 Fiscal Year which had been awarded prior to June 30, 1951 in accordance with Section 143.1 of the Streets and Highways Code. In addition to the obligations mentioned \$3,304,139.69 of county highway and other special budget contracts were underway.

Revisions in Accounting Procedure

As in previous years, the accounting system has undergone revision to meet changing conditions or to improve existing methods. The following are some of the more important changes which have taken place during the year:

1. Budgetary and accounting procedure in connection with maintenance operations was simplified to decrease the number of work orders required, to furnish more comprehensive cost data, and to facilitate reporting of costs.

2. A revised schedule of accounting reports submitted by the branch offices to headquarters office was devised which will result in considerable savings in handling, mailing, and printing costs.

3. A completely new inventory procedure in connection with land and plants was developed and is in the process of installation, which will result in more effective control and which will simplify reporting procedures.

4. The shop nonrental equipment procedure was further improved by revisions in the accounting for such equipment.

5. The system employed in clearing charges between branch offices was improved with a material reduction in the clerical work involved.

6. A revised method of obtaining control account balances was put into effect, decreasing the clerical work involved by 75 percent.

7. The procedure followed in closing the accounts and budgetary records at the end of the fiscal year was improved and simplified, particularly with respect to the handling of day labor projects, resulting in a considerable savings in time and effort.

8. Cash accounting procedures were further changed to establish in the Central State Treasury Bank Account System the pay roll revolving fund and all other funds not transferred thereto in the preceding year.

APPENDIX A

ACCOUNTING AND FINANCIAL STATEMENTS

1. Statement of Financial Condition as of June 30, 1951.
 2. Statement of Receipts and Disbursements and Budgetary Resources and Obligations, July 1, 1950 to June 30, 1951.
 3. Analysis of Income Received by Division of Highways by Fiscal Years to June 30, 1951.
 4. Analysis of Federal Government Funds Received by Division of Highways by Fiscal Years to June 30, 1951.
 5. Expenditures by Division of Highways to June 30, 1951, Classified as to Function.
 6. Expenditures by Division of Highways by Fiscal Years to June 30, 1951, Classified as to Location and Purpose.
 7. Statement of Expenditures in Counties for Construction, Reconstruction, Improvements, and Maintenance and Contributions Received in Connection therewith, January 1, 1912 to June 30, 1951.
 8. Statement of Service and Supply Department Financial Transactions, July 1, 1950 to June 30, 1951, and Summary July 1, 1947 to June 30, 1951.
 9. Statements of Budgetary Transactions as of June 30, 1951.
 - (a) State Highway Operating Budget—1951-1952 Fiscal Year.
 - (b) State Highway Operating Budget—1950-1951 Fiscal Year.
 - (c) State Highway Operating Budget—1949-1950 Fiscal Year.
 - (d) State Highway Operating Budget—1948-1949 Fiscal Year.
 - (e) State Highway Operating Budget—1947-1948 Fiscal Year.
 - (f) County Highway Budget—Continuous.
 - (g) County Highway Budget—Prior.
 - (h) Access Highways Budget.
 - (i) Grade Separations Operating Budget.
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DEPARTMENT OF PUBLIC WORKS, DIVISION OF HIGHWAYS
STATEMENT OF FINANCIAL CONDITION AS OF JUNE 30, 1951
Assets and Budgetary Resources

Cash:		
Cash in transit to State Treasurer	\$1,624,575.00	
Cash state	992,421.13	
Cash suspense	70,839.37	
Revolving fund	4,000,000.00	
Less advance to Convict Camp Fund	\$6,687,835.50	\$6,617,835.50
	70,000.00	
State Highway Fund in Treasury		64,560,797.85
Court deposits in condemnation proceedings		6,106,111.95
Receivables:		
Accounts receivable	\$3,336,841.46	
Charges in process of billing	54,060.66	3,390,902.12
Loans to:		
California Toll Bridge Authority, Chaps. 5 and 24, Statutes 1933	\$6,519,848.91	
Division of Toll Crossings, Chapter 700, Statutes 1949, and Chapter 2, Statutes 1950	924,071.62	
California Toll Bridge Authority Permanent Revolving Fund, Chapter 22, Statutes 1933	50,000.00	
Convict Camp Fund	70,000.00	7,563,920.53
Inventories:		
Stores—Equipment Department	\$750,923.39	
Stores—district offices	977,333.13	
Stores—Service and Supply Department	1,335,880.50	3,064,137.02
Legislative appropriations:		
For Golden Gate Bridge Approach, Chapter 1505, Statutes 1945	\$4,959,399.60	
For Federal Government Non-highway Administration, Chapter 29, Statutes 1950	10,000.00	4,969,399.60
Land and buildings:		
Inventory	\$9,561,628.69	
Plants under construction	5,329,683.31	14,891,312.00
Equipment:		
Construction and automotive	\$15,341,542.61	
Less reserve for depreciation	7,103,510.46	
	\$8,238,032.15	
Office, shop, and miscellaneous	4,139,318.44	12,377,350.59
Suspense and deferred items:		
Building operation suspense	\$—7,245.21	
Equipment operation suspense	—112,687.45	
Clearing account	—394,676.69	
Unapplied laboratory credits	—112,000.82	
Equipment Department current account	—31,660.40	
Prepaid Bay Bridge insurance	88,210.94	
Undistributed payroll and other charges	113,140.82	
Staff payroll adjustment	—18,788.60	
Construction sign suspense	—9,243.21	—484,950.62
Advance expenditures 1951–1952 F. Y. contracts		1,032,313.07
Estimated revenue:		
Federal aid—		
In process of collection	\$363,293.86	
Under agreement	12,755,419.41	
Work programed and agreements pending	23,270,978.23	
Work to be programed	11,636,231.28	
Total federal aid	\$48,025,922.78	
Less amount included in 1951–1952 F. Y. budget	26,146,637.00	
Net federal aid	\$21,879,285.78	
Work for other State agencies	481,010.16	
Contributions	3,926,020.79	
Equipment depreciation and sales	397,905.96	26,684,222.69
Total assets and budget resources		<u>\$150,773,352.30</u>

DEPARTMENT OF PUBLIC WORKS, DIVISION OF HIGHWAYS
STATEMENT OF FINANCIAL CONDITION AS OF JUNE 30, 1951—Continued
Liabilities, Reserves, Budgetary Obligations, and Surplus

Liabilities:		
Claims payable	\$11,287,675.04	
Invoices pending—shops	56,712.91	
Sales tax collected	6,499.16	
Estimated liability for support of other departments	196,000.00	
Retirement contributions due	355,702.67	
Bond Sinking Fund—Golden Gate Bridge Approach, Chapter 1505/1945	5,000,000.00	\$16,902,589.78
Reserves for:		
Compensation insurance, vacation, sick leave, and overtime	\$545,317.47	
Loan to California Toll Bridge Authority, Chapters 5 and 24, Statutes 1933	6,519,848.91	
Legislative appropriations	4,969,399.60	12,034,565.98
Deferred items:		
Uncollected contributions	\$2,979,044.56	
Uncleared collections	992,421.13	
Cash suspense	70,839.37	
Windy Point Dam deposit, Chapter 19, Statutes 1947	787,764.18	4,830,069.24
Advance revenue collections—1951-1952 F. Y. budget		432,534.98
State's investment in capital assets		27,268,662.59
Budget allocations:		
Budgetary encumbrances—		
Uncompleted State highway budget contracts	\$68,578,701.93	
Less 1951-1952 F. Y. contracts	9,571,754.65	
	\$59,006,947.28	
Uncompleted special budget contracts	3,304,139.69	
Day labor projects	4,206,402.69	
Engineering and other	268,914.56	
Total encumbrances	\$66,786,404.22	
Budget allotments unencumbered	13,996,622.82	
Reserve for Division of Toll Crossings, Chapter 700, Statutes 1949	893,049.00	81,676,076.04
Estimated unbudgeted surplus		*7,628,853.69
Total liabilities, reserves, budget obligations, and surplus		<u>\$150,773,352.30</u>

Trust Group

		Assets	
Agency trust accounts in State Treasury:			
Withheld from contract payments to protect claims	\$289,800.99		
Convict Camp Fund	39,673.25		
Prisoners' Trust Fund	13,454.75		
Securities held in trust	4,000.00		\$346,928.99
Funds in State Treasury:			
Unclaimed trust moneys			911.15
Total assets			<u>\$347,840.14</u>
		Liabilities	
Liability for:			
Amounts withheld from contracts	\$293,800.99		
Convict Camp Fund	39,673.25		
Prisoners' Trust Fund	13,454.75		
Cancelled checks	911.15		
Total liabilities			<u>\$347,840.14</u>

* Estimated unbudgeted surplus reduced to \$2,685,642 in August, 1951, by votes of Highway Commission revising 1951-1952 Fiscal Year budget to conform to revised revenue estimate and expenditure program.

DEPARTMENT OF PUBLIC WORKS, DIVISION OF HIGHWAYS
STATEMENT OF RECEIPTS AND DISBURSEMENTS AND
BUDGETARY RESOURCES AND OBLIGATIONS

Excess of income over expenditures as of July 1, 1950.....		\$45,410,077.60	
Suspense items, other assets, reserves.....		6,688,980.54	
Total resources as of July 1, 1950.....			\$52,099,058.14
Receipts during year:			
Highway users tax revenue.....	\$143,842,250.23		
Federal Government reimbursements.....	16,969,428.51		
Contributions.....	5,471,625.46		
Outdoor advertising license fees.....	61,676.72		
Recoveries—U. S. war damage claims.....	818,339.61		
Franchise tax—toll ferries.....	600.00		
Cancelled warrants escheated.....	320.30		
Total income.....	\$167,164,240.83		
Less advance revenue collections—1951-1952 F. Y.			
budget.....	432,534.98		
Net income.....			166,731,705.85
Estimated revenue uncollected as of June 30, 1951:			
Federal aid—			
In process of collection.....	\$363,293.86		
Under agreement.....	12,755,419.41		
Work programed and agreements pending.....	23,270,978.23		
Work to be programed.....	11,636,231.28		
Total federal aid.....	\$48,025,922.78		
Less amount included in 1951-1952 F. Y. budget.....	26,146,637.00		
Net federal aid.....	\$21,879,285.78		
Work for other State agencies.....	481,010.16		
Contributions.....	3,926,020.79		
Equipment depreciation and sales.....	397,905.96		
Total budgetary resources.....			26,684,222.69
Total budgetary resources.....			\$245,514,986.68

Total budgetary resources (carried forward)			\$245,514,886.68
Expenditures during year:			
Regular budgets—			
Highway construction, north	\$43,640,459.13		
Highway construction, south	57,999,261.14		
Cities $\frac{1}{4}$ ¢ state highway, north	966,937.17		
Cities $\frac{1}{4}$ ¢ state highways, south	197,721.22		
Joint highway district, north	71,768.78		
Maintenance	20,509,729.98		
Emergency damage repairs	3,042.40		
Cities—city streets	19,265,095.38		
Highway planning	601,836.71		
Planning survey	437,652.67		
Work for other state agencies	419,098.08		
Legislative damage claims	17,806.55		
Supervision of outdoor advertising	60,551.25		
Plants and equipment	2,816,600.36		
Administration, State General Fund departments	331,945.07		
Administration, Department of Public Works	127,561.99		
Administration, Division of Highways	4,085,794.49		
Administration, Division of Contracts and Rights of Way	190,600.68		
Total regular budget expenditures		\$151,743,463.05	
Less expenditures applying to 1951-1952 F. Y. contracts		1,032,313.07	
Net expenditures		\$150,711,149.98	
Special budgets—			
Highway construction, north	\$12,364.60		
Highway construction, south	—3,228.87		
Highway construction, feeder	—10,633.58		
County highway construction	5,500,404.82		
Total special budget expenditures		5,498,906.97	
Total expenditures during year			\$156,210,056.95
Budgetary resources as of June 30, 1951:			
Excess of income over expenditures		\$52,475,971.22	
Suspense items, other assets, reserves		10,144,735.82	
Estimate revenue not collected (above)		26,684,222.69	
Net budgetary resources			\$89,304,929.73
Budgetary allocations:			
Uncompleted state highway budget contracts	\$68,578,701.93		
Less 1951-1952 F. Y. contracts	9,571,754.65	\$59,006,947.28	
Uncompleted special budget contracts		3,304,139.69	
Day labor projects		4,206,402.69	
Engineering and other		268,914.56	
Total encumbrances		\$66,786,404.22	
Budget allotments unencumbered		13,996,622.82	
Reserve for Division of Toll Crossings—Chapter 700/1949		893,049.00	\$81,676,076.04
Estimated unbudgeted surplus June 30, 1951			*\$7,628,853.69

* Estimated unbudgeted surplus reduced to \$2,685,642 in August, 1951, by votes of Highway Commission revising 1951-1952 Fiscal Year budget to conform to revised revenue estimate and expenditure program.

ANALYSIS OF INCOME RECEIVED BY DIVISION OF HIGHWAYS BY FISCAL YEARS TO JUNE 30, 1951

Fiscal year	Total annual revenue ^a	Federal Government reimbursements	Contributions	State General Fund appropriations ^a	1st, 2d, 3d, Highway Funds	Advertising license fees	Miscellaneous	Highway users tax revenue
1911-1912	\$160,503.04			\$6,932.33	\$153,569.71			
1912-1913	1,255,693.94			20,800.00	2,234,893.94			\$4,655.17
1913-1914	2,245,271.78			20,800.00	2,266,071.61			1,093.33
1914-1915	6,719,658.93			20,800.00	6,740,458.93			1,088,883.37
1915-1916	7,566,984.05			20,800.00	7,587,784.05			1,083,692.67
1916-1917	5,779,472.92		\$190,109.68	35,561.60	6,069,582.65			1,525,282.27
1917-1918	5,739,741.65	\$59,571.76	77,000.00	24,158.08	4,505,621.24			1,771,701.97
1918-1919	7,601,610.83		263,008.30	24,158.08	5,512,231.61			1,931,290.77
1919-1920	8,091,726.26		79,988.27	20,800.00	6,000,000.00			2,431,800.57
1920-1921	9,132,386.08	524,612.01	20,014.48	20,800.00	5,122,000.00			3,018,192.36
1921-1922	24,140,339.40	1,297,200.85	257,584.66	20,800.00	19,012,550.00			3,735,054.99
1922-1923	13,269,702.28	1,925,603.19	55,683.85	370,800.00	6,016,200.00			7,635,337.74
1923-1924	18,267,769.70	2,663,295.33	128,332.00	316,600.00	7,000,000.00			9,434,270.58
1924-1925	16,484,482.55	2,683,083.33	612,238.63	1,065.86	3,181,500.00			10,934,875.12
1925-1926	17,737,787.79	3,271,711.00	495,935.09	181,121.75				12,171,691.01
1926-1927	15,331,219.89	3,287,087.83	375,733.09	10,000.00				19,961,155.90
1927-1928	23,814,918.60	2,978,864.97	170,663.91	1,079,994.82				24,937,044.26
1928-1929	29,678,423.23	2,434,125.74	562,702.94					27,835,197.22
1929-1930	31,500,953.35	3,443,873.79	297,505.18					24,787,041.62
1930-1931	32,590,065.88	3,931,822.91	418,785.58					27,213,721.36
1931-1932	32,186,234.92	4,493,802.63	369,022.47					26,656,933.08
1932-1933	34,502,696.49	7,205,767.53	173,425.77					27,324,923.48
1933-1934	33,271,262.63	6,298,332.79	180,484.51					29,830,381.57
1934-1935	37,866,497.26	10,041,249.32	469,154.67					32,991,507.28
1935-1936	39,908,589.73	9,550,349.23	486,915.31					35,263,082.42
1936-1937	49,483,583.41	16,571,766.51	1,116,801.77					35,241,782.68
1937-1938	44,952,706.70	8,873,600.09	782,634.60					37,855,334.78
1938-1939	45,000,245.99	9,269,747.08	460,908.47					39,466,365.15
1939-1940	44,338,155.41	6,152,641.50	297,202.34					44,689,183.41
1940-1941	48,841,753.86	7,877,834.54	1,462,901.21					37,477,183.99
1941-1942	50,963,637.06	5,635,224.61	654,882.26					33,521,435.40
1942-1943	52,719,278.04	15,346,517.40	867,935.21					34,267,762.70
1943-1944	58,417,281.65	10,864,032.89	484,758.31					42,835,763.26
1944-1945	39,141,969.64	4,963,307.39	85,298.12					55,381,659.51
1945-1946	64,885,373.90	4,574,012.34	5,207,950.33					1,119,019.25
1946-1947	76,693,102.06	1,969,697.28	1,943,481.04					543,004.33
1947-1948	107,258,065.59	25,855,041.17	4,400,465.80					118,326.16
1948-1949	150,245,449.65	22,234,591.88	3,107,598.58					133,629,122.17
1949-1950	158,235,845.81	17,796,475.18	6,627,334.03					143,842,250.23
1950-1951	167,164,240.83	16,969,428.51	5,471,625.46					\$83,184,866.79
Totals	\$1,616,103,752.76	\$265,390,753.20	\$28,918,027.73	\$27,865,754.71	\$74,112,243.50	\$669,262.80	\$83,184,866.79	\$1,216,052,844.03

^a Includes \$275,733.33 paid direct by State Controller to State Highway Engineer and Highway Commissioners.

^b Represents discount on bonds.

^c Represents reduction of revenue due to reversion of appropriations.

^d Does not include apportionment for quarter ending June 30, 1951, received July, 1951—\$25,921,308.72.

^e Includes: Net earnings on investments, \$1,373,647.04; recoveries U. S. war damage claims, \$1,787,359.95; franchise tax toll ferries, \$4,800; proceeds, sale of Topock Bridge, \$18,739.50; cancelled warrants escheated, \$320.30.

ANALYSIS OF INCOME RECEIVED BY DIVISION OF HIGHWAYS BY FISCAL YEARS TO JUNE 30, 1951—Continued

ANALYSIS OF HIGHWAY USERS TAX REVENUE *

1947-1948 Fiscal Year

Motor Vehicle Fuel Taxes:

Gasoline Tax.....	\$71,681.376.06
Use Fuel Tax.....	3,029,301.52
Miscellaneous.....	1,603.11

Motor Vehicle Transportation Tax.....4,826,958.30

Caravan Fees.....138,952.50

Motor Vehicle Registration and Weight Fees.....7,751,399.08

Total apportionments.....\$87,429,590.57

Deduct: Disbursements by State Controller

To State Controller—Section 2103.1.....\$100,000.00

To Counties—Section 2104.....2,700,000.00

Net transfer to State Highway Fund.....\$84,629,590.57

1948-1949 Fiscal Year

Motor Vehicle Fuel Taxes:

Gasoline Tax.....	\$85,576,141.32
Use Fuel Tax.....	3,734,754.09
Miscellaneous.....	71,164.97

Motor Vehicle Transportation Tax.....6,816,461.97

Caravan Fees.....—30.00

Motor Vehicle Registration and Weight Fees.....43,303,477.91

Total apportionments.....\$133,501,970.26

Deduct: Disbursements by State Controller

Contributions to State Retirement System.....\$1,976.29

To State Controller—Section 2103.1.....102,267.00

To Counties—Section 2104.....6,087,445.38

Net transfer to State Highway Fund.....\$133,310,281.59

1949-1950 Fiscal Year

Motor Vehicle Fuel Taxes:

Gasoline Tax.....	\$90,845,499.74
Use Fuel Tax.....	4,532,978.33
Miscellaneous.....	210,598.22

Motor Vehicle Transportation Tax.....7,450,896.25

Motor Vehicle Registration and Weight Fees.....37,052,430.42

Total apportionments.....\$140,092,402.96

Deduct: Disbursements by State Controller

Contributions to State Retirement System.....1,208.29

To State Controller—Section 2103.1.....—62,403.46

To Counties—Section 2104.....6,524,475.96

Net transfer to State Highway Fund.....\$133,629,122.17

1950-1951 Fiscal Year

Motor Vehicle Fuel Taxes:

Gasoline Tax.....	\$96,648,733.20
Use Fuel Tax.....	5,495,522.23
Miscellaneous.....	149,783.25

Motor Vehicle Transportation Tax.....8,672,855.48

Motor Vehicle Registration and Weight Fees.....39,961,465.00

Total apportionments.....\$150,928,359.16

Deduct: Disbursements by State Controller

To State Controller—Section 2103.1.....\$0.00

To Counties—Section 2104.....7,086,108.93

Net transfer to State Highway Fund.....\$143,842,250.23

* For prior years see Second Annual Report.

FEDERAL REIMBURSEMENTS—Continued
Analysis of Federal Government Funds Received by Division of Highways by Fiscal Years to June 30, 1951

Fiscal year	ON AND OFF STATE SYSTEM					Nonhighway work flight strips
	Works program fund		Federal aid secondary		Access highways	
	Highways	Grade crossings	Highways	Grade crossings		
1917-1918						
1919-1920						
1920-1921						
1921-1922						
1922-1923						
1923-1924						
1924-1925						
1925-1926						
1926-1927						
1927-1928						
1928-1929						
1929-1930						
1930-1931						
1931-1932						
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1946-1947						
1947-1948						
1948-1949						
1949-1950						
1950-1951						
Totals	\$7,747,928.00	\$7,486,362.00	\$22,086,582.11	\$7,054,229.63	\$34,373,121.79	\$2,245,325.45

For a comparison of these federal reimbursements to apportionments of federal funds to California refer to the table on page 98.

EXPENDITURES BY DIVISION OF HIGHWAYS TO JUNE 30, 1951

Classified as to Functions

Item	Totals to June 30, 1951		July 1, 1950-June 30, 1951		July 1, 1949-June 30, 1950		July 1, 1948-June 30, 1949	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Preliminary engineering-----	\$51,023,651.90	3.26	\$8,061,064.44	5.02	\$6,174,406.87	4.25	\$5,462,960.84	3.30
Construction engineering--day labor-----	-----	-----	113,313.44	.07	147,741.77	.10	150,033.16	.09
Construction engineering--contracts-----	-----	-----	6,509,603.19	4.05	5,972,273.13	4.11	6,243,052.74	3.77
Construction engineering--total-----	60,089,450.94	3.84	-----	-----	-----	-----	-----	-----
Right of way-----	159,083,308.30	10.21	32,934,466.50	20.49	20,916,460.07	14.40	26,366,758.76	15.95
Construction and improvement work--day labor-----	127,798,814.35	8.17	5,162,010.47	3.21	5,277,047.58	3.63	4,419,077.23	2.67
Construction and improvement work--contracts-----	632,053,952.97	40.40	54,358,169.20	33.83	58,806,834.25	40.48	65,564,678.72	39.66
County highway districts-----	3,837,109.50	.25	71,768.78	.05	223,856.80	.15	112,000.00	.07
Cities 3/4 State highways--construction-----	46,899,189.78	3.00	1,164,658.39	.72	2,472,821.87	1.70	5,075,459.40	3.08
Totals, construction and improvements-----	\$1,081,405,473.74	69.13	\$105,375,054.41	67.44	\$89,991,442.34	68.82	\$113,394,020.85	68.59
Aid to counties-----	\$25,000.00	-----	-----	-----	-----	-----	-----	-----
Flight strip construction-----	2,245,225.45	.14	-----	-----	-----	-----	-----	-----
County properties-----	1,499,512.60	.10	-----	-----	-----	-----	-----	-----
Work for other State agencies-----	2,758,695.99	.18	\$419,098.08	.26	\$855,756.81	.59	\$466,043.84	.28
Emergency damage repairs-----	3,042.40	-----	3,042.40	-----	-----	-----	-----	-----
Maintenance-----	261,803,686.94	16.74	20,509,729.98	12.76	19,394,892.63	13.35	18,301,723.10	11.07
Cities 1/4 State highways--maintenance-----	9,693,523.75	.62	19,265,095.38	11.99	16,950,948.09	11.67	36,553.58	.02
City streets (Section 194-S&H Code)-----	110,696,218.55	7.08	-----	-----	-----	-----	22,518,387.52	13.62
Damage claims paid-----	40,290.00	-----	17,806.55	.01	6,103.77	-----	3,414.01	-----
Highway planning-----	3,347,438.94	.23	601,836.71	.38	525,329.68	.37	493,480.79	.30
Planning survey-----	3,323,081.47	.21	437,652.67	.27	314,721.57	.22	386,489.42	.24
Supervision of outdoor advertising-----	663,121.77	.04	60,551.25	.04	62,561.31	.04	57,979.41	.04
Plants and equipment-----	22,553,835.88	1.44	2,816,600.36	1.75	1,928,177.44	1.33	3,704,539.11	2.24
Reserves and suspense-----	10,144,755.82	.65	3,455,755.28	2.15	964,279.67	.66	1,552,452.63	.94
Totals, maintenance, special activities, miscellaneous-----	\$29,039,509.16	27.43	\$47,587,193.66	29.61	\$41,007,221.90	28.23	\$47,521,063.41	28.75
Administration expense-----	-----	-----	-----	-----	-----	-----	-----	-----
At district offices-----	\$25,253,118.10	1.61	\$2,078,442.56	1.30	\$1,844,160.35	1.27	\$1,943,382.98	1.17
At headquarters office-----	21,082,953.89	1.35	2,007,351.93	1.25	1,825,547.65	1.26	1,790,110.88	1.08
Division of Contracts and Rights of Way-----	1,080,433.83	.07	190,000.68	.12	166,472.25	.12	148,873.04	.09
Department of Public Works-----	1,295,806.75	.09	127,501.99	.08	102,651.17	.07	99,041.32	.06
Other State departments-----	4,756,886.10	.31	331,945.07	.20	346,335.30	.23	415,169.16	.26
Paid direct by State Controller-----	275,733.33	.01	-----	-----	-----	-----	-----	-----
Federal--non-highway-----	7,744.73	-----	-----	-----	-----	-----	-----	-----
Totals administration-----	\$53,872,576.73	3.44	\$4,735,902.23	2.95	\$4,285,160.72	2.95	\$4,306,577.38	2.66
Grand totals-----	\$1,564,317,559.63	100.00	\$160,698,125.30	100.00	\$145,283,531.96	100.00	\$165,311,661.64	100.00

EXPENDITURES BY DIVISION OF HIGHWAYS TO JUNE 30, 1951—Continued
Classified as to Functions

Item	July 1, 1947-June 30, 1948		July 1, 1946-June 30, 1947		July 1, 1945-June 30, 1946		March 1, 1912-June 30, 1945	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
Preliminary engineering.....	\$3,563,337.31	2.86	\$2,854,510.81	3.14	\$2,099,262.94	4.58	\$22,808,108.69	2.74
Construction engineering—day labor.....	102,499.14	.08	101,328.37	.11	66,455.15	.14	14	
Construction engineering—contracts.....	5,150,730.54	4.14	3,876,767.52	4.27	1,345,613.44	2.94	30,320,039.05	3.64
Construction engineering—total.....	5,253,229.68		3,978,095.89		1,412,068.59		30,334,094.23	
Right of way.....	14,998,513.06	12.05	8,744,908.70	9.63	6,735,981.40	14.70	48,996,219.81	5.86
Construction and improvement work—day labor.....	3,668,755.15	2.95	3,367,897.17	3.70	2,242,403.83	4.80	103,671,623.22	12.46
Construction and improvement work—contracts.....	55,071,632.22	44.24	42,083,638.48	46.36	11,130,177.87	24.28	315,038,822.53	41.47
Joint highway districts.....	73,030.10	.06	150,000.00	.17			3,206,453.82	3.86
Cities $\frac{1}{4}$ State highways—construction.....	5,574,013.72	4.48	3,920,505.15	4.32	2,343,053.76	5.11	26,348,673.49	3.17
Totals, construction and improvements.....	\$88,202,511.24	70.86	\$65,089,556.20	71.70	\$25,062,948.09	56.64	\$580,389,940.61	69.76
Aid to counties.....							\$25,000.00	
Flight strip construction.....	—\$64.24		—\$1,210.22		\$17,275.49	.04	2,229,324.42	.27
County postwar projects.....			39,354.39	.04	134,438.62	.30	1,325,719.56	.16
Work for other State agencies.....	310,006.55	.25					707,680.31	.09
Emergency damage repairs.....								
Maintenance.....	15,617,718.55	12.55	11,877,566.30	13.09	11,335,460.96	24.73	164,766,595.37	19.86
Cities $\frac{1}{4}$ State highways—maintenance.....	711,582.15	.57	889,304.95	.98	831,681.91	1.77	7,240,933.28	.87
City streets (Section 194-S&H Code).....	8,102,917.03	6.51	6,167,590.59	6.79	3,531,800.44	7.70	34,159,678.60	4.10
Damage claims paid.....	10,722.58	.01			3,531,773.23		82,469.86	.01
Highway planning.....	431,154.60	.35	237,089.38	.26	204,164.22	.45	1,054,353.56	.13
Planning survey.....	366,644.30	.29	339,693.64	.37	132,829.33	.29	1,345,050.54	.16
Supervision of outdoor advertising.....	55,593.72	.04	41,677.70	.05	34,106.88	.07	340,648.50	.04
Plants and equipment.....	6,166,393.96	4.96	2,546,797.00	2.81	510,463.68	1.11	4,880,964.33	.59
Reserves and suspense.....	578,606.69	.46	581,476.63	.64	769,213.97	1.68	2,242,950.95	.27
Totals, maintenance, special activities, miscellaneous.....	\$32,351,276.79	25.99	\$22,719,340.36	25.03	\$17,482,008.73	38.14	\$220,371,429.31	26.49
Administration expense—								
At district offices.....	\$2,055,005.99	1.65	\$1,420,220.33	1.57	\$1,161,086.02	2.53	\$14,750,819.87	1.77
At headquarters office.....	1,312,744.43	1.05	1,062,070.95	1.17	911,862.95	1.99	12,173,165.10	1.47
Division of Contracts and Rights of Way.....	125,613.07	.10	83,896.24	.09	80,334.54	.18	274,644.01	.03
Department of Public Works.....	85,987.11	.07	68,541.91	.07	67,887.82	.15	834,332.43	.10
Other State departments.....	346,266.90	.28	324,244.48	.36	167,864.39	.37	2,855,003.80	.35
Paid direct by State Controller.....							275,733.33	.03
Federal—non-highway.....	17.10		300.34		1,648.75		5,778.54	
Total administration.....	\$3,925,634.60	3.15	\$2,969,274.25	3.27	\$2,390,484.47	5.22	\$31,169,557.08	3.75
Grand totals.....	\$124,479,422.63	100.00	\$90,778,170.81	100.00	\$45,835,411.29	100.00	\$831,930,907.00	100.00

EXPENDITURES BY DIVISION OF HIGHWAYS BY FISCAL YEARS TO JUNE 30, 1951
Classified as to Location and Purpose

Fiscal year	Total annual expenditures	EXPENDITURES ON HIGHWAYS					
		On state system		Off state system		Maintenance	
		Construction—Reconstruction—Improvements (Includes right of way and engineering)					
		Rural	Incorporated cities ^a	Rural	Incorporated cities	Rural	Incorporated cities ^a
1912-1922	\$68,361,014.24	\$58,325,400.50	---	---	---	\$6,054,750.20	---
1922-1923	18,181,744.42	14,624,956.32	---	---	---	2,077,224.82	---
1923-1924	16,475,994.29	12,034,358.38	---	---	---	2,639,929.64	---
1924-1925	15,813,595.38	11,942,581.96	---	---	---	3,177,066.68	---
1925-1926	16,064,960.01	11,568,911.35	---	---	---	3,426,747.56	---
1926-1927	15,983,286.87	10,353,680.23	---	---	---	5,656,244.73	---
1927-1928	15,886,156.89	10,075,388.80	---	---	---	4,462,993.83	---
1928-1929	25,473,504.47	19,353,930.87	---	---	---	4,926,454.10	---
1929-1930	33,144,154.41	25,192,676.42	---	---	---	6,752,845.54	---
1930-1931	32,301,296.22	25,289,922.75	---	---	---	5,678,964.43	---
1931-1932	35,162,149.64	26,465,989.16	---	---	---	6,843,801.35	---
1932-1933	32,892,832.02	25,723,627.17	---	---	---	5,798,548.59	---
1933-1934	37,309,610.00	23,402,416.28	---	---	---	6,932,564.50	---
1934-1935	36,950,873.25	18,104,194.71	---	---	---	7,816,765.34	---
1935-1936	39,998,463.64	16,701,201.60	---	---	---	8,106,142.64	---
1936-1937	53,022,109.28	27,797,019.96	---	---	---	8,242,656.83	---
1937-1938	45,315,395.91	20,583,220.64	---	---	---	8,251,152.62	---
1938-1939	41,559,637.90	18,093,429.11	---	---	---	796,911.44	---
1939-1940	40,884,541.39	13,797,541.12	---	---	---	806,795.17	---
1940-1941	44,485,441.20	17,813,894.42	---	---	---	808,571.11	---
1941-1942	47,029,463.90	17,225,513.06	---	---	---	10,829,171.28	---
1942-1943	55,621,190.83	14,362,553.06	---	---	---	7,969,320.59	---
1943-1944	39,629,017.42	13,101,706.83	---	---	---	8,942,213.48	---
1944-1945	34,184,620.42	13,408,000.51	---	---	---	7,993,320.59	---
1945-1946	55,525,441.29	36,579,031.21	---	---	---	630,487.03	---
1946-1947	60,778,116.81	36,579,031.21	---	---	---	7,957,678.37	---
1947-1948	124,471,422.63	11,457,090.23	---	---	---	11,315,872.43	---
1948-1949	124,471,422.63	11,457,090.23	---	---	---	11,841,138.56	---
1949-1950	145,283,830.06	60,585,256.77	---	---	---	14,500,884.06	---
1950-1951	160,698,125.30	62,862,547.16	---	---	---	15,724,397.17	---
Totals	\$1,564,317,559.63	\$735,255,385.99	\$278,490,445.55	\$46,894,349.06	\$14,538,400.03	\$250,850,848.03	\$20,648,362.66

EXPENDITURES BY DIVISION OF HIGHWAYS BY FISCAL YEARS TO JUNE 30, 1951—Continued
Classified as to Location and Purpose

Fiscal year	EXPENDITURES ON HIGHWAYS SUBVENTIONS		Administration special investigations and highway planning survey	Equipment, plants, reserves, suspense and miscellaneous	Supervision of outdoor advertising	Flight strip construction
	To counties ^b	To cities ^c				
1912-1922.....	\$50,000.00		\$1,280,938.17	\$2,699,925.37		
1922-1923.....			790,685.95	638,376.73		
1923-1924.....			765,139.85	1,036,565.92		
1924-1925.....	100,701.59		747,845.54	—154,600.39		
1925-1926.....	50,000.00		707,189.22	312,111.98		
1926-1927.....	50,000.00		816,675.49	—896,313.58		
1927-1928.....	75,000.00		850,542.37	422,231.89		
1928-1929.....	80,000.00		997,208.42	115,911.08		
1929-1930.....	336,280.00		1,066,796.62	—204,444.17		
1930-1931.....	411,449.86		1,050,133.14	—129,260.96		
1931-1932.....	339,223.20		1,086,879.08	426,256.85		
1932-1933.....	62,560.10		1,100,206.71	207,889.45		
1933-1934.....	663,574.94		1,196,685.82	305,575.75	\$17,892.25	
1934-1935.....	16,840.85		1,432,696.29	233,108.91	27,976.24	
1935-1936.....	158,722.14	\$1,902,631.42	1,308,224.36	983,360.91	19,915.86	
1936-1937.....	100,000.00	3,587,123.05	1,935,760.95	119,403.55	29,394.80	
1937-1938.....	201,338.64	4,000,269.75	1,865,727.42	758,014.05	32,375.40	
1938-1939.....	25,765.86	4,081,769.62	1,809,589.34	465,054.96	33,552.63	
1939-1940.....	43,000.00	4,225,718.94	1,873,339.46	442,411.28	30,543.09	
1940-1941.....	148,583.00	4,445,932.35	2,225,063.14	396,757.11	30,733.41	
1941-1942.....	127,589.00	4,606,321.49	2,302,842.51	1,259,971.07	33,409.44	\$37,969.43
1942-1943.....	142,935.33	3,287,591.87	2,213,377.30	—812,284.92	26,855.64	1,662,326.07
1943-1944.....	633,302.97	2,790,587.92	2,121,896.02	—794,712.59	28,330.24	497,033.84
1944-1945.....	740,305.93	2,518,438.75	2,020,528.01	52,265.20	29,669.50	31,995.08
1945-1946.....	134,438.62	3,615,319.61	2,727,478.02	1,280,450.88	34,106.98	17,275.49
1946-1947.....	189,354.39	6,444,492.83	3,546,057.27	41,677.70	41,677.70	—1,210.22
1947-1948.....	73,030.10	8,397,994.99	4,723,433.50	55,893.72	55,893.72	—64.24
1948-1949.....	112,000.00	22,798,998.23	5,276,547.59	7,065,729.78	57,979.41	
1949-1950.....	223,856.80	17,075,069.59	5,125,217.97	3,753,317.67	62,564.31	
1950-1951.....	71,768.78	19,301,741.75	5,775,391.61	6,712,302.67	60,551.25	
Totals.....	\$5,361,622.10	\$113,083,002.16	\$60,743,097.14	\$35,550,599.69	\$653,121.77	\$2,245,325.45

^a Includes Cities $\frac{1}{2}$ -cent State Highway Funds.

^b Includes Joint Highway Districts, County Postwar Projects and Aid to Counties.

^c Includes Cities—City Street Funds and Cities $\frac{1}{2}$ -cent State Highway Funds.

NOTE: In this report expenditures incurred in the County of San Francisco, shown on previous reports as rural expenditures, have been reclassified as urban expenditures as the City and County of San Francisco are coterminous.

STATEMENT OF EXPENDITURES IN COUNTIES FOR CONSTRUCTION, RECONSTRUCTION, IMPROVEMENTS, AND MAINTENANCE AND CONTRIBUTIONS RECEIVED IN CONNECTION THEREWITH, JANUARY 1, 1912, TO JUNE 30, 1951

(Expenditures Shown Include Expenditures of Contributions Received From Counties and Others and Expenditures in Joint Highway Districts But Exclude City Gasoline Tax Expenditures)

County	CONSTRUCTION, RECONSTRUCTION, IMPROVEMENTS				MAINTENANCE EXPENDITURES	
	Expenditures		Contributions			
	50-51 fiscal year July 1, 1950 June 30, 1951	Totals January 1, 1912 June 30, 1951	50-51 fiscal year July 1, 1950 June 30, 1951	Totals January 1, 1912 June 30, 1951	50-51 fiscal year June 30, 1951	Totals January 1, 1912 June 30, 1951
Alameda	\$7,331,337.52	\$51,633,684.77	—\$81,231.50	\$342,517.81	\$598,415.57	\$4,213,898.99
Alpine	206,788.89	1,058,727.80	38,426.00	40,426.00	119,931.95	1,382,997.00
Amador	140,332.10	3,516,428.08	200.00	100,802.19	172,205.54	2,759,154.27
Butte	734,839.09	8,982,155.52	477,936.84	739,276.59	195,730.05	3,423,233.58
Calaveras	337,174.34	3,507,219.00	45,059.77	147,420.87	165,372.44	2,498,625.64
Colusa	252,336.42	4,237,595.00	1,000.00	119,286.67	86,254.28	1,686,495.56
Contra Costa	2,185,833.55	16,456,294.68	168,866.97	251,811.14	502,487.23	3,579,159.10
Del Norte	721,724.64	9,631,368.48	—	67,599.74	303,461.51	4,233,970.91
El Dorado	910,023.32	5,823,258.23	47,600.60	80,505.57	349,648.02	4,267,515.06
Fresno	1,624,325.60	19,141,777.87	115,865.00	202,960.01	487,628.13	4,616,924.69
Glenn	115,155.02	4,128,949.25	28,900.00	314,130.51	68,740.94	1,406,890.97
Humboldt	1,510,391.71	22,649,858.04	114,417.85	705,510.22	615,055.37	10,693,734.02
Imperial	885,129.25	20,111,506.99	—	124,304.19	268,256.38	4,541,863.96
Inyo	113,169.26	6,192,231.91	1,129.42	5,629.42	255,575.33	3,791,410.47
Kern	3,603,811.86	35,949,054.01	327,154.47	739,045.65	611,324.61	10,299,015.66
Kings	267,929.65	3,228,857.27	27,393.40	62,057.12	101,718.55	1,579,800.82
Lake	267,142.46	4,702,692.16	900.00	7,705.44	165,267.66	2,687,856.50
Lassen	136,243.30	6,801,021.90	71,436.97	426,292.67	244,974.95	3,463,558.99
Los Angeles	31,637,096.42	191,035,495.34	515,143.85	3,449,125.27	2,181,920.81	18,109,619.98
Madera	1,015,170.57	8,054,477.45	34,303.67	170,579.87	122,256.12	1,475,877.60
Marin	1,011,315.84	14,480,420.85	42,725.40	181,544.57	230,299.03	3,424,796.65
Mariposa	298,367.49	5,322,569.94	—	125,880.09	129,242.78	1,933,145.51
Mendocino	968,863.11	22,604,964.99	35,896.66	254,781.80	516,087.79	8,819,472.17
Merced	1,512,603.41	11,977,378.39	41,718.97	123,585.95	261,098.82	3,103,130.45
Modoc	1,032,681.36	7,078,836.43	43,874.00	293,341.37	197,530.36	2,844,963.62
Mono	318,472.97	6,027,219.49	3,227.14	3,426.94	382,584.79	5,156,874.44
Monterey	1,075,411.84	26,953,070.69	72,510.77	434,583.38	399,308.33	5,901,159.98
Napa	463,010.32	5,131,061.61	2,769.63	30,419.56	130,242.72	2,186,409.92
Nevada	257,839.94	7,044,615.43	2,820.40	110,626.22	404,637.40	4,556,853.62
Orange	3,253,271.45	23,031,390.33	9,171.19	288,161.73	395,091.14	4,915,293.33
Placer	821,689.56	15,083,114.18	47,433.77	148,439.24	289,289.06	4,534,148.49
Plumas	65,348.92	8,436,006.95	162,780.39	257,935.54	317,838.56	3,918,592.38
Riverside	4,006,257.36	28,052,635.76	6,526.31	812,941.22	566,931.90	7,907,190.14
Sacramento	1,265,629.92	15,904,057.40	110,308.85	662,954.43	460,828.09	5,066,938.58
San Benito	957,084.32	4,628,560.81	—469.28	73,440.24	116,612.37	1,360,545.61
San Bernardino	3,509,586.03	39,092,419.31	284,320.95	578,643.04	1,000,228.02	16,239,933.53
San Diego	4,547,408.93	51,423,468.69	156,302.43	1,621,037.89	644,776.69	7,778,185.31
San Francisco	5,432,061.01	30,610,335.03	—	304,034.15	180,283.57	607,269.22
San Joaquin	628,612.57	17,038,935.40	73,737.84	166,246.33	550,859.57	4,611,922.86
San Luis Obispo	1,699,593.05	19,331,296.70	63,636.23	161,169.02	424,970.50	5,500,757.71
San Mateo	1,420,139.41	29,848,031.85	192,092.61	3,514,724.40	484,288.42	4,931,740.01
Santa Barbara	2,972,041.16	29,177,113.37	561,931.68	828,740.11	409,742.45	5,365,533.66
Santa Clara	2,915,970.27	22,513,715.04	13,495.29	1,949,219.22	399,407.13	4,948,044.97
Santa Cruz	416,402.16	10,907,296.63	3,657.43	679,627.05	221,792.70	3,352,136.48
Shasta	1,290,871.50	23,680,935.02	—4,381.15	2,124,122.98	439,015.88	6,764,364.79
Sierra	280,676.77	1,635,303.50	1,000.00	21,629.34	160,488.86	1,505,552.07
Siskiyou	708,727.57	13,573,765.80	126,700.00	253,971.23	346,440.13	5,913,148.15
Solano	1,274,181.59	20,884,659.90	1,450.00	62,676.30	313,498.34	4,278,198.43
Sonoma	1,198,039.71	12,965,278.19	73,355.73	239,349.23	393,898.68	5,354,080.22
Stanislaus	1,207,325.02	7,972,022.15	93,139.55	123,043.05	148,477.90	1,700,296.97
Sutter	154,850.27	3,731,375.87	227,026.24	310,060.47	56,122.73	785,486.19
Tehama	690,184.69	8,909,753.14	26,411.00	278,292.63	211,426.43	3,965,502.60
Trinity	405,720.59	7,866,215.91	26,930.43	39,610.43	192,121.15	3,007,763.03
Tulare	1,838,171.86	14,884,814.88	94,164.58	528,100.33	411,777.02	4,463,844.38
Tuolumne	558,194.86	3,155,584.37	—	13,914.62	192,434.15	3,645,649.07
Ventura	1,766,350.60	21,691,294.35	255.00	16,755.00	420,000.70	6,376,727.98
Yolo	895,337.54	9,975,224.69	1,100.00	135,366.18	236,350.01	3,358,678.53
Yuba	96,146.08	4,824,228.28	102,045.05	219,894.56	57,480.37	1,007,752.12
Totals	\$107,210,396.02	\$1,034,291,625.07	\$4,634,168.40	\$26,169,276.79	\$20,509,729.98	\$261,803,686.94

SERVICE AND SUPPLY DEPARTMENT
Statement of Financial Transactions, July 1, 1950, to June 30, 1951

	Northern warehouse	Southern warehouse	Totals
Sales.....			
Cost of sales:			
Inventories, July 1, 1950.....	\$964,454.80	\$658,559.48	\$1,623,014.28
Inventory adjustments.....			\$1,165,215.78
Adjusted inventories.....	\$577,816.96	\$587,398.82	—19,530.13
Purchases.....	—2,322.85		
Adjusted inventories.....	\$575,494.11	\$570,191.54	\$1,145,685.65
Purchases.....	1,090,900.72	591,195.39	1,682,096.11
Inventories and purchases.....			
Inventories, June 30, 1951.....	\$1,666,394.83	\$1,101,386.03	\$2,827,781.76
Cost of sales (disbursements).....	818,565.62	557,236.43	1,405,802.05
Gross profit from sales (markup).....	847,829.21	574,150.50	1,421,979.71
Operating expense:			
Salaries and wages.....	\$116,625.59	\$84,408.98	\$201,034.57
Equipment rental.....			
Equipment operation expense.....	\$70,524.67	\$58,314.46	\$128,839.13
Light, heat, power, water.....	3,924.33	4,888.83	8,813.16
Telephone and telegraph.....	380.71	568.98	949.69
Miscellaneous office expense.....	2,321.26	1,393.46	3,714.72
Packaging and shipping supplies.....	1,190.86	2,079.90	3,270.76
Miscellaneous warehouse expense.....	916.51	532.97	1,449.48
Inventory adjustments.....	2,717.23	1,078.91	3,796.14
Price adjustments.....	1,932.75	2,024.63	3,957.68
Abatements to operating expense.....	322.14	109.32	431.46
Price adjustments.....	—6,233.31	—3,708.41	—9,941.72
Total operating expense.....	—439.67	—1,164.17	—1,603.84
Gross gain from warehouse operations.....	77,557.48	65,619.18	143,176.66
Other expense:			
Outgoing freight.....	\$39,068.11	\$18,789.80	\$57,857.91
Research and testing.....			\$33,035.93
Total other expense.....			2,506.38
Net gain from operations.....	21,352.91	14,189.40	35,542.31
Cash discount earned.....			
Net income for year.....	\$17,715.20	\$4,600.40	\$22,315.60
Surplus, July 1, 1950.....	3,871.06	2,632.05	6,503.11
Surplus adjustments.....			
Net income for year.....	\$21,586.26	\$7,232.45	\$28,818.71
Surplus, July 1, 1950.....	\$31,150.01	\$9,353.60	\$40,503.61
Surplus adjustments.....	—1,024.66	34.77	—989.89
Accumulated Surplus, June 30, 1951.....	30,125.35	9,393.37	39,518.72
	\$51,711.61	\$16,025.82	\$68,337.43

Summary of Financial Transactions, July 1, 1947, to June 30, 1951

	Northern warehouse		Southern warehouse		Totals
Sales.....	-----	\$2,894,652.09	-----	\$1,841,609.76	\$4,736,261.85
Cost of sales:					
Purchases.....	\$3,376,182.70	-----	\$2,198,220.89	-----	\$5,574,503.59
Inventory adjustments.....	28,952.73	-----	23,366.73	-----	52,319.46
Inventories, June 30, 1951.....	\$3,347,229.37	-----	\$2,174,954.16	-----	\$5,522,184.13
	818,565.62	-----	587,236.43	-----	1,405,802.05
Cost of sales (disbursements).....	-----	2,528,664.35	-----	1,587,717.73	4,116,382.08
Gross profit from sales (markup).....	-----	\$365,987.74	-----	\$353,892.03	\$619,879.77
Operating expense.....	-----	295,230.66	-----	225,551.02	520,781.68
Gross gain from warehouse operations.....	-----	\$70,757.08	-----	\$28,341.01	\$99,098.09
Other expense:					
Research and testing.....	\$3,048.61	-----	\$1,758.94	-----	\$4,807.55
Outgoing freight.....	45,391.92	-----	28,706.16	-----	74,098.08
Net gain from operations.....	-----	48,440.53	-----	30,465.10	78,905.63
Cash discount earned.....	-----	\$22,316.55	-----	\$2,124.00	\$20,192.46
Net income.....	-----	3,871.06	-----	2,632.05	6,503.11
Surplus adjustments-inventory valuation.....	-----	\$26,187.61	-----	\$597.96	\$26,695.57
	-----	25,524.00	-----	16,117.86	41,641.86
Accumulated Surplus, June 30, 1951.....	-----	\$51,711.61	-----	\$16,625.82	\$68,337.43

Operating expense shown in above statements represents only expense chargeable to warehouse operations. The administrative expense of the Service and Supply Department, aggregating \$145,688.93 for the 1950-51 Fiscal Year and \$532,507.55 to date, is charged to the headquarters administration accounts for the reason that the department performs many other functions in addition to operating the warehouses.

STATE HIGHWAY OPERATING BUDGET—1951-1952 FISCAL YEAR
Statement of Budgetary Transactions as of June 30, 1951 *

	From 1950-51 fiscal year budget	Original budget	Budgetary adjustments	Contributions	Adjusted budget and contributions	Expenditures authorized work orders	Unencumbered balance available
Preliminary engineering:							
North.....		\$2,750,000.00	\$550,000.00		\$3,300,000.00		\$3,300,000.00
South.....		4,000,000.00	700,000.00		4,700,000.00		4,700,000.00
Totals.....		\$6,750,000.00	\$1,250,000.00		\$8,000,000.00		\$8,000,000.00
Right of way:							
North.....		\$9,531,000.00	\$4,469,000.00		\$14,000,000.00		\$14,000,000.00
South.....		13,325,000.00	4,175,000.00		17,500,000.00		17,500,000.00
Totals.....		\$22,856,000.00	\$8,644,000.00		\$31,500,000.00		\$31,500,000.00
Construction engineering:							
North.....		\$3,200,000.00			\$3,200,000.00		\$3,200,000.00
South.....		3,500,000.00			3,500,000.00		3,500,000.00
Totals.....		\$6,700,000.00			\$6,700,000.00		\$6,700,000.00
Construction projects:							
North.....		\$33,413,000.00	\$5,907,160.04		\$39,320,160.04	\$4,333,953.68	\$34,986,206.36
Contributions—north.....				\$205,242.79	205,242.79	205,242.79	205,242.79
South.....		39,445,500.00	2,772,692.66		42,218,192.66	6,026,216.29	36,191,976.37
Totals.....		\$72,858,500.00	\$8,679,852.70	\$205,242.79	\$81,743,595.49	\$10,565,412.76	\$71,178,182.73
Minor improvements and betterments:							
North.....		\$600,000.00			\$600,000.00		\$600,000.00
Contributions—north.....				\$2,800.00	2,800.00		2,800.00
South.....		400,000.00			400,000.00		400,000.00
Totals.....		\$1,000,000.00		\$2,800.00	\$1,002,800.00		\$1,002,800.00
Cities ¼ cent-State highways:							
North.....	\$1,210,307.09				\$1,210,307.09	\$291,113.35	\$919,193.74
South.....	358,676.70				358,676.70	92,827.22	265,849.48
Totals.....	\$1,568,983.79				\$1,568,983.79	\$383,940.57	\$1,185,043.22

Joint highway districts:

North-----						\$64,667.00			\$64,667.00
Contingency reserves:									
North-----	\$1,147,001.63	\$2,481,000.00							\$1,339,340.78
South-----	3,447,958.29	2,854,500.00							1,346,302.08
Totals-----	\$7,594,959.92	\$5,335,500.00							\$2,685,642.86
Summary:									
North-----	\$5,357,308.72	\$51,975,000.00				\$5,702,166.19	\$208,042.79	\$4,830,309.82	\$58,412,207.88
South-----	3,806,634.99	63,525,000.00				2,691,536.45		6,119,043.51	63,904,127.43
Totals-----	\$9,163,943.71	\$115,500,000.00				\$8,393,702.64	\$208,042.79	\$10,949,353.33	\$122,316,335.81
City streets-----		\$20,500,000.00				\$1,100,000.00		\$201,735.11	\$26,665,060.89
General maintenance	\$5,266,796.00	21,000,000.00				—10,500,000.00			10,500,000.00
Major slides-----						1,500,000.00			1,500,000.00
Replacement and improved service						8,250,000.00			5,245,584.00
Maintenance performed by cities						1,750,000.00			1,640,160.00
Building and plants-----		3,500,000.00				—145,304.16		3,004,416.00	3,354,695.84
Highway planning-----		1,500,000.00				458,838.38		109,840.00	1,902,190.72
Construction and automotive equipment						2,192,755.51		56,647.66	423,859.43
Noncurrent equipment-----						515,500.00		1,768,896.08	515,500.00
Administration-----		4,500,000.00				500,000.00			5,000,000.00
Supervision of outdoor advertising	16,141.03	65,000.00				—1,077,497.00		81,141.03	4,622,503.00
Federal aid secondary reserve		5,700,000.00							1,412,060.92
Emergency damage repairs-----	1,412,060.92								1,632,527.63
Reserves for legislative appropriations	893,049.00					739,478.63			
Totals-----	\$16,751,990.66	\$172,265,000.00				**\$13,677,474.00	\$208,042.79	\$16,090,888.18	\$186,811,619.27

* After giving effect to July and August votes of Highway Commission transferring unexpended 1950-1951 Fiscal Year Budget funds and revising 1951-1952 Fiscal Year Budget to conform to revised revenue estimates and expenditure program.

** Estimated increase in Highway Users Tax-----

Estimated decrease in primary federal aid apportionment-----

Estimated decrease in secondary federal aid apportionment-----

Estimated reimbursement—Bay Bridge approach expenditures-----

\$10,600,000.00
—5,387.00
—417,139.00
3,500,000.00

\$13,677,474.00

STATE HIGHWAY OPERATING BUDGET—1950-1951 FISCAL YEAR
Statement of Budgetary Transactions as of June 30, 1951 *

	From 1949-50 fiscal year budget	Original budget	Budgetary adjustments	Contributions	Adjusted budget and contributions	Expenditures and obligations	Unencumbered balance
Preliminary engineering:							
North.....		\$2,100,000.00	\$1,253,106.49		\$3,353,106.49	\$3,353,106.49	
Contributions—north.....			956,726.07	\$80,000.00	80,000.00	37,000.00	\$43,000.00
South.....		3,600,000.00			4,556,726.07	4,556,726.07	
Contributions—south.....				11,000.00	11,000.00	11,000.00	
Totals.....		\$5,700,000.00	\$2,209,832.56	\$91,000.00	\$8,000,832.56	\$7,957,832.56	\$43,000.00
Right of way:							
North.....		\$8,889,200.00	\$3,965,063.81		\$12,854,263.81	\$12,884,263.81	
Contributions—north.....				\$11,000.00	11,000.00	11,000.00	
South.....		11,895,000.00	8,192,054.78		20,087,054.78	20,087,054.78	
Contributions—south.....				44,110.14	44,110.14	44,110.14	
Totals.....		\$20,784,200.00	\$12,157,148.59	\$55,110.14	\$33,026,458.73	\$33,026,458.73	
Construction engineering:							
North.....		\$3,000,000.00	—\$147,921.47		\$2,852,078.53	\$2,852,078.53	
Contributions—north.....				\$45,000.00	45,000.00	45,000.00	
South.....		3,300,000.00	—174,289.06		3,125,710.94	3,125,710.94	
Contributions—south.....				234,400.00	234,400.00	232,775.72	\$1,624.28
Totals.....		\$6,300,000.00	—\$322,210.53	\$279,400.00	\$6,257,189.47	\$6,255,565.19	\$1,624.28
Construction projects:							
North.....		\$26,086,000.00	\$4,069,819.85		\$30,155,819.85	\$30,155,819.85	
Contributions—north.....				\$1,667,698.09	1,668,069.34	1,658,069.34	\$9,628.75
South.....		30,816,000.00	9,683,316.49		40,499,316.49	40,499,316.49	
Contributions—south.....				2,857,682.72	2,857,682.72	2,851,255.81	\$6,426.91
Totals.....		\$56,902,000.00	\$13,753,136.34	\$4,525,380.81	\$75,180,517.15	\$75,164,461.49	\$16,055.66
Minor improvements and betterments:							
North.....		\$750,000.00	\$88,834.02		\$838,834.02	\$838,834.02	
Contributions—north.....				\$7,616.11	7,616.11	7,554.28	\$61.83
South.....		750,000.00	—203,690.55		546,309.45	546,309.45	
Contributions—south.....				7,645.74	7,645.74	6,980.92	\$664.82
Totals.....		\$1,500,000.00	—\$114,856.53	\$15,261.85	\$1,400,405.32	\$1,399,678.67	\$726.65
Cities 1/4 cent-State highways:							
North.....	\$2,171,191.82				\$2,171,191.82	\$960,884.73	\$1,210,307.09
South.....	507,329.62				507,329.62	148,652.92	358,676.70
Totals.....	\$2,678,521.44				\$2,678,521.44	\$1,109,537.65	\$1,568,983.79

[illegible]

a Less contributions held pending determination of ultimate disposition thereof.

Unexpended State funds

Unexpended State funds	\$3,500.00
North Reserve and \$3,004.60 retained in Work for Other State Agencies to augment going contracts	37,504.60
	--

Transferred to 1951-52 Fiscal Year Budget.

* After giving effect to July and August votes of Highway Commission clearing unexpended balances in budget items to contingency reserves for transfer to 1951-1952 Fiscal Year Budget.

*** Increase in Highway Users Tax apportionments

** Increase in Highway Users Tax apportionments—	\$16,846,250.37
Recoveries—U. S. war damage claims	818,339.61
Service agreements with other State agencies	154,452.12
Equipment depreciation	1,658,971.89
Increase in federal aid secondary apportionments	7,788.00
Increase in federal aid primary apportionments	11,570.00
Emergency damage repairs—federal aid apportionment	1,000,000.00
Franchise tax—toll ferries	600.00
Cancelled warrant estimated	320.30
Increase in outdoor advertising fees	1,076.72
Federal aid secondary apportionment transferred to county highway budget	—4,027,439.00
Estimated interest on investments eliminated	—100,000.00
	\$16,372,529.87

STATE HIGHWAY OPERATING BUDGET—1949-1950 FISCAL YEAR
Statement of Budgetary Transactions as of June 30, 1951

	From 1948-1949 fiscal year budget	Original budget	Budgetary adjustments	Contributions	Adjusted budget and contributions	Expenditures and contract obligations	Unexpended balance
Preliminary engineering:							
North.....		\$2,100,000.00	\$351,503.25		\$2,451,503.25	\$2,451,503.25	
Contributions—north.....			33,886.09	\$33,886.09	33,886.09	33,886.09	
South.....		2,400,000.00	1,103,340.76		3,503,340.76	3,503,340.76	\$-1,059.13
Contributions—south.....				89,847.39	89,847.39	89,847.39	
Totals.....		\$4,500,000.00	\$1,454,844.01	\$123,733.48	\$6,075,577.49	\$6,077,518.36	\$1,059.13
Right of way:							
North.....		\$5,879,500.00	\$3,179,109.38		\$9,058,609.38	\$9,058,609.38	
Contributions—north.....				\$270,000.00	270,000.00	270,000.00	
South.....		11,822,000.00	—920,284.15		10,901,715.85	10,901,715.85	
Contributions—south.....				422,831.01	422,831.01	422,831.01	
Totals.....		\$17,701,500.00	\$2,258,825.23	\$692,831.01	\$20,653,156.24	\$20,653,156.24	
Construction engineering:							
North.....		\$2,600,000.00	\$275,285.99		\$2,875,285.99	\$2,875,285.99	
South.....		2,600,000.00	94,144.94		2,694,073.94	2,694,073.94	\$871.00
Contributions—south.....				\$42,820.00	42,820.00	41,700.20	\$1,119.80
Totals.....		\$5,200,000.00	\$369,430.93	\$42,820.00	\$5,612,250.93	\$5,611,060.13	\$1,190.80
Construction projects:							
North.....		\$31,319,000.00	—\$821,872.26		\$30,497,127.74	\$30,497,127.74	
Contributions—north.....				\$75,167.96	68,374.15	68,374.15	
South.....		34,684,000.00	341,143.68		35,025,143.68	35,025,143.68	
Contributions—south.....				501,295.89	501,295.89	501,295.89	
Totals.....		\$66,003,000.00	—\$480,728.58	\$576,463.85	\$66,098,735.27	\$66,091,941.46	\$6,793.81
Minor improvements and betterments:							
North.....		\$425,000.00	\$237,388.01		\$662,388.01	\$662,388.01	
Contributions—north.....				\$63,886.14	62,699.66	62,699.66	
South.....		725,000.00	—130,684.65		594,315.35	594,315.35	
Contributions—south.....				71,553.93	71,553.93	71,553.93	
Totals.....		\$1,150,000.00	\$106,703.36	\$135,440.07	\$1,392,143.43	\$1,390,956.95	\$1,186.48
Cities 1/4 State highways:							
North.....	\$3,367,963.80				\$3,367,963.80	\$1,196,667.06	\$2,171,296.74
South.....	1,632,989.59				1,632,989.59	1,125,659.97	507,329.62
Totals.....	\$5,000,953.39				\$5,000,953.39	\$2,322,327.03	\$2,678,626.36

STATE HIGHWAY OPERATING BUDGET—1948-1949 FISCAL YEAR
Statement of Budgetary Transactions as of June 30, 1951

	From 1947-1948 fiscal year budget	Original budget	Budgetary adjustments	Contributions	Adjusted budget and contributions	Expenditures and contract obligations	Unexpended balance
Preliminary engineering:							
North.....		\$2,250,000.00	—\$171,046.75		\$2,078,953.25	\$2,078,953.25	
Contributions—north.....				\$72,503.28	72,503.28	72,503.28	
South.....		1,975,000.00	1,160,324.74		3,135,324.74	3,135,324.74	
Contributions—south.....				60,000.00	60,000.00	60,000.00	
Totals.....		\$4,225,000.00	\$989,277.99	\$132,503.28	\$5,346,781.27	\$5,346,781.27	
Right of way:							
North.....		\$4,000,000.00	\$5,200,659.85		\$10,100,659.85	\$10,100,659.85	
Contributions—north.....				\$4,755.49	4,755.49	4,755.49	
South.....		13,382,000.00	2,360,647.38		15,742,647.38	15,742,647.38	
Contributions—south.....				354,876.63	354,876.63	354,876.63	
Totals.....		\$18,282,000.00	\$7,561,307.23	\$359,632.12	\$26,202,939.35	\$26,202,939.35	
Construction engineering:							
North.....		\$2,000,000.00	\$739,286.97		\$2,739,286.97	\$2,739,286.97	
Contributions—north.....				\$35,693.83	35,693.83	35,693.83	
South.....		2,000,000.00	958,104.58		2,958,104.58	2,958,104.58	
Contributions—south.....				61,283.10	61,283.10	61,283.10	
Totals.....		\$4,000,000.00	\$1,697,391.55	\$96,976.93	\$5,794,368.48	\$5,794,368.48	
Construction projects:							
North.....		\$25,954,500.00	—\$391,332.64		\$25,563,167.36	\$25,563,167.36	
Contributions—north.....				\$339,351.08	339,351.08	339,351.08	
South.....		25,341,500.00	279,931.41		25,621,431.41	25,621,431.41	
Contributions—south.....				1,442,113.14	1,442,113.14	1,417,315.54	\$24,797.60
Totals.....		\$51,296,000.00	—\$111,401.23	\$1,781,464.22	\$52,966,062.99	\$52,941,265.39	\$24,797.60
Minor improvements and betterments:							
North.....		\$650,000.00	—\$126,452.57		\$523,547.43	\$523,547.43	
Contributions—north.....				\$34,650.84	34,650.84	34,650.84	
South.....		1,000,000.00	—471,797.06		528,202.94	528,202.94	
Contributions—south.....				92,647.32	92,647.32	92,647.32	
Totals.....		\$1,650,000.00	—\$598,249.63	\$127,298.16	\$1,179,048.53	\$1,179,048.53	

Cities 1/4 State highways:

North.....	\$4,957,923.43					\$4,957,923.43	\$1,589,959.63	\$3,367,963.80
South.....	5,015,796.21					5,015,796.21	3,382,806.62	1,632,989.59
Totals.....	\$9,973,719.64					\$9,973,719.64	\$4,972,766.25	\$5,000,953.39
Joint highway districts:								
North.....				\$230,753.14		\$230,753.14		
Contingency reserves:								
North.....	\$5,685,333.02	\$2,435,350.00				\$4,619,611.57		\$4,619,611.57
South.....	7,213,311.78	2,981,650.00				8,325,057.62		8,325,057.62
Totals.....	\$12,898,644.80	\$5,420,000.00				\$12,944,669.19		\$12,944,669.19
Summary:								
North.....	\$10,643,256.45	\$38,192,850.00			\$486,954.52	\$51,300,857.92	\$43,313,282.15	\$7,987,575.37
South.....	12,229,107.99	46,680,150.00			2,010,920.19	63,337,485.07	53,354,640.26	9,982,844.81
Totals.....	\$22,872,364.44	\$84,873,000.00			\$2,497,874.71	\$114,638,342.99	\$96,667,922.41	\$17,970,420.18
City streets.....								
General maintenance.....	\$9,673,578.86	\$18,400,000.00				\$26,788,807.13	\$22,456,977.65	\$4,331,829.48
Major slides.....		7,783,982.00				8,334,850.78		
Replacement and improved service.....		1,353,000.00				1,122,810.92		
Maintenance in cities.....		5,213,018.00				6,316,527.05		
Buildings and plants.....		3,200,000.00				2,367,214.66		
Highway planning.....		3,000,000.00				3,112,237.11		
Highway plan and automotive equipment.....		850,000.00				879,970.21		
Construction.....		2,000,000.00				2,582,526.72		
Administration.....		4,000,000.00				4,399,991.39		
Work for other State agencies.....	295,034.64					1,132,919.89		
Supervision of outdoor advertising.....	8,712.47	55,000.00				70,971.01		
Totals.....	\$32,849,690.41	\$130,728,000.00			\$2,497,874.71	\$171,747,169.46	\$148,920,481.09	\$22,826,688.37
								24,797.60
								\$22,801,890.77

*Less contributions held pending determination of ultimate disposition thereof

Transferred to 1949-1950 Fiscal Year budget

* Increase in Highway Users Tax apportionment.....
 Franchise tax—toll ferries.....
 Interest on investments.....
 Federal aid.....
 Recoveries—U. S. war damage claims.....
 Service agreements—work for other State agencies.....
 Depreciation on equipment.....
 Depreciation on buildings and plants.....
 Increase in outdoor advertising fees.....

\$2,860,281.59
 600.00
 664.47
 78,403.00
 218,739.86
 837,885.25
 1,367,718.04
 200,053.59
 7,258.54
 \$5,671,604.34

STATE HIGHWAY OPERATING BUDGET—1947-1948 FISCAL YEAR
Final Statement of Budgetary Transactions as of June 30, 1951

	Transfers		Budgetary adjustments	Contributions	Adjusted budget and contributions	Expenditures and contract obligations	Unexpended balances to 1948-1949 F. Y. budget
	From 1946-1947 fiscal year operating budget	From 1947-1948 fiscal year budget					
Preliminary engineering:							
North.....	\$107,260.12	\$1,500,000.00	—\$27,226.07	-----	\$1,580,034.05	\$1,580,034.05	-----
Contributions—north.....	79,439.89	-----	-----	—\$79,472.12	467.77	467.77	-----
South.....	219,335.63	2,000,000.00	—403,280.17	-----	1,816,055.46	1,816,055.46	-----
Contributions—south.....	631.12	-----	-----	914.33	1,545.45	1,545.45	-----
Totals.....	\$407,166.76	\$3,500,000.00	—\$430,506.24	—\$78,557.79	\$3,398,102.73	\$3,398,102.73	-----
Right of way:							
North.....	\$912,911.63	\$6,000,000.00	—\$516,676.43	-----	\$6,396,235.20	\$6,396,235.20	-----
Contributions—north.....	112,276.11	-----	-----	—\$12,272.86	3.25	3.25	-----
South.....	1,832,388.96	7,500,000.00	—673,950.76	-----	8,658,438.21	8,658,438.21	-----
Contributions—south.....	-----	-----	-----	1,983.04	1,983.04	1,983.04	-----
Totals.....	\$2,857,576.70	\$13,500,000.00	—\$1,190,627.18	—\$110,289.82	\$15,056,659.70	\$15,056,659.70	-----
Construction engineering:							
North.....	\$446,755.11	\$2,100,000.00	—\$331,526.47	-----	\$2,215,228.64	\$2,215,228.64	-----
Contributions—north.....	24,585.23	-----	-----	—\$779.74	23,805.49	23,805.49	-----
South.....	771,455.70	2,100,000.00	—640,718.01	-----	2,230,737.69	2,230,737.69	-----
Contributions—south.....	-----	-----	-----	13,314.72	13,314.72	13,314.72	-----
Totals.....	\$1,242,796.04	\$4,200,000.00	—\$972,244.48	\$12,534.98	\$4,483,086.54	\$4,483,086.54	-----
Construction projects:							
North.....	\$20,332,756.19	\$16,714,000.00	—\$308,925.07	-----	\$36,737,831.12	\$36,737,831.12	-----
Contributions—north.....	6,279,458.92	-----	-----	—\$4,377,486.90	1,901,972.02	1,901,972.02	-----
South.....	21,213,611.68	17,546,600.00	1,556,688.60	-----	40,316,900.28	40,316,900.28	-----
Contributions—south.....	—6,023.52	-----	-----	808,532.84	802,499.32	802,499.32	-----
Totals.....	\$47,819,803.27	\$34,260,600.00	\$1,247,763.53	—\$2,568,964.06	\$79,759,202.74	\$79,759,202.74	-----

COUNTY HIGHWAY BUDGET

STATEMENT OF BUDGETARY TRANSACTIONS AS OF JUNE 30, 1951

Apportionments to Counties of Federal Aid Secondary Funds
Under Federal Highway Aid Act of 1948

County	State and federal funds			Contributions		
	Apportionment	Work orders	Unencumbered balance	Amount budgeted	Work orders	Unencumbered balance
Alameda-----	\$101,603.00	\$101,603.00		\$91,272.00	\$90,906.04	\$365.96
Alpine-----	40,241.00	2,682.97	\$37,558.03	38,426.00	38,426.00	
Amador-----	40,241.00		40,241.00	200.00	200.00	
Butte-----	132,663.00	132,663.00		240,504.70	237,580.78	2,923.92
Calaveras-----	48,554.00		48,554.00	2,700.00	2,700.00	
Colusa-----	55,108.00		55,108.00	2,170.51	2,170.51	
Contra Costa-----	117,220.00	112,220.00	5,000.00	90,032.00	90,032.00	
Del Norte-----	40,241.00		40,241.00			
El Dorado-----	69,660.00	30,000.00	39,660.00	31,400.00	30,911.94	488.06
Fresno-----	411,981.00	365,493.00	46,488.00	179,632.33	179,632.33	
Glenn-----	65,503.00	58,000.00	7,503.00	62,682.57	52,959.32	9,723.25
Humboldt-----	149,526.00	43,200.00	106,326.00	61,100.00	60,707.17	392.83
Imperial-----	169,473.00		169,473.00			
Inyo-----	199,468.00		199,468.00	1,129.42		1,129.42
Kern-----	360,683.00	78,023.80	282,659.20	73,000.00	71,522.02	1,477.98
Kings-----	96,469.00	96,469.00		49,187.15	48,982.09	205.06
Lake-----	53,964.00		53,964.00	800.00	800.00	
Lassen-----	119,681.00	119,681.00		100,000.00	91,362.18	8,637.82
Los Angeles-----	824,317.00	286,000.00	538,317.00	140,173.00	140,173.00	
Madera-----	97,888.00	24,500.00	73,388.00	34,617.71	15,764.50	18,853.21
Marin-----	73,280.00		73,280.00	2,125.00	2,125.00	
Mariposa-----	51,062.00		51,062.00			
Mendocino-----	127,694.00	114,520.00	13,174.00	105,891.64	105,398.12	493.52
Merced-----	138,034.00	15,750.00	122,284.00	44,400.00	2,750.00	41,650.00
Modoc-----	102,226.00	102,226.00		94,874.00	94,874.00	
Mono-----	71,876.00	35,908.00	35,968.00			
Monterey-----	162,075.00	162,075.00		86,219.10	81,607.83	4,611.27
Napa-----	69,928.00	6,500.00	63,428.00	2,064.95	1,728.07	336.88
Nevada-----	50,407.00	10,355.00	40,052.00			
Orange-----	154,313.00	5,900.00	148,413.00	600.00	600.00	
Placer-----	82,832.00	82,831.00	1.00	54,713.18	53,706.91	1,006.27
Plumas-----	80,008.00		80,008.00	1,671.76	1,650.00	21.76
Riverside-----	295,873.00	85,000.00	210,873.00	42,730.00	42,419.20	310.80
Sacramento-----	179,971.00		179,971.00	5,100.00	5,100.00	
San Benito-----	57,750.00	17,190.13	40,559.87			
San Bernardino-----	539,336.00	393,454.07	145,881.93	276,940.60	274,997.25	1,943.35
San Diego-----	234,006.00	234,006.00		346,050.00	346,050.00	
San Joaquin-----	188,639.00	107,639.00	81,000.00	74,050.00	74,050.00	
San Luis Obispo-----	126,740.00	96,584.00	30,156.00	68,033.56	68,033.56	
San Mateo-----	72,665.00	72,665.00		97,079.34	95,929.34	1,150.00
Santa Barbara-----	108,788.00	54,349.00	54,439.00			
Santa Clara-----	184,869.00	153,000.00	31,869.00	118,899.14	117,899.14	1,000.00
Santa Cruz-----	65,574.00	2,896.00	62,678.00	5,250.00	5,250.00	
Shasta-----	131,196.00	131,196.00		157,304.00	156,866.58	437.42
Sierra-----	40,241.00		40,241.00	1,000.00	1,000.00	
Siskiyou-----	189,443.00		189,443.00	500.00	500.00	
Solano-----	79,748.00		79,748.00	1,200.00		1,200.00
Sonoma-----	187,771.00	89,000.00	98,771.00	133,241.14	63,036.10	70,205.04
Stanislaus-----	162,122.00	149,000.00	13,122.00	96,200.00	93,500.45	2,699.55
Sutter-----	58,468.00	37,000.00	21,468.00	31,254.06	31,254.06	
Tehama-----	94,260.00	94,260.00		80,951.00	80,950.59	.41
Trinity-----	84,811.00		84,811.00			
Tulare-----	293,018.00	248,954.00	44,064.00	95,600.00	91,900.00	3,700.00
Tuolumne-----	69,897.00	67,351.00	2,546.00			
Ventura-----	126,637.00		126,637.00			
Yolo-----	71,064.00		71,064.00	1,100.00	1,100.00	
Yuba-----	47,079.00		47,079.00	900.00	900.00	
County apportionments-----	\$8,048,185.00	\$4,020,144.97	\$4,028,040.03	\$3,224,969.86	\$3,050,006.08	\$174,963.78

COUNTY HIGHWAY BUDGET

STATEMENT OF BUDGETARY TRANSACTIONS AS OF JUNE 30, 1951

Apportionment to Counties of Federal Aid Secondary Funds Under Federal Aid Act of 1944 and State Funds Under County Highway Aid Act, Chapters 938 and 952, Statutes of 1945

County	State and federal funds			Contributions		
	Apportionment	Work orders	Unencumbered balance	Amount budgeted	Work orders	Unencumbered balance
Alameda.....	\$321,777.00	\$321,777.00		\$661.16	\$661.16	
Alpine.....	127,446.00	84,813.51	\$42,632.49	35,276.00	35,276.00	
Amador.....	127,446.00	127,401.00	45.00	97,462.52	97,462.52	
Butte.....	420,150.00	414,063.92	6,086.08	444,602.82	443,602.82	\$1,000.00
Calaveras.....	153,782.00	153,304.20	477.80	43,859.77	43,708.97	150.80
Colusa.....	174,538.00	174,538.00		56,032.65	56,032.65	
Contra Costa.....	371,242.00	371,242.00		107,696.53	107,696.53	
Del Norte.....	127,446.00	127,446.00		40,599.74	40,599.74	
El Dorado.....	220,629.00	219,709.96	919.04	42,779.37	42,779.37	
Fresno.....	1,304,780.00	1,302,464.49	2,315.51	50,249.89	50,237.68	12.21
Glenn.....	207,446.00	207,446.00		157,150.76	156,898.44	252.32
Humboldt.....	473,566.00	471,827.15	1,738.85	158,407.69	158,407.69	
Imperial.....	536,729.00	526,886.76	9,842.21	537.13	537.13	
Inyo.....	631,729.00	626,000.76	5,728.24	2,000.00	2,000.00	
Kern.....	1,142,313.00	1,029,793.48	112,519.52	83,592.01	83,592.01	
Kings.....	305,535.00	305,535.00		5,182.47	4,663.80	518.67
Lake.....	170,905.00	164,438.52	6,466.48	1,805.44	1,805.44	
Lassen.....	379,042.00	379,042.00		102,371.97	102,371.97	
Los Angeles.....	2,610,683.00	2,537,284.74	73,398.26			
Madera.....	310,021.00	300,801.59	9,219.41	62,633.25	62,633.25	
Marin.....	232,079.00	232,079.00		1,793.03	1,793.03	
Mariposa.....	161,722.00	161,722.00		1,424.60	1,424.60	
Mendocino.....	404,430.00	404,430.00		131,628.35	131,628.35	
Merced.....	437,164.00	419,781.50	17,382.50	6,701.82	6,474.04	227.78
Modoc.....	323,749.00	323,317.04	431.96	136,731.74	135,057.07	1,674.67
Mono.....	227,618.00	183,566.82	44,051.18	3,227.14	3,224.09	3.05
Monterey.....	513,305.00	513,305.00		219,094.76	219,094.76	
Napa.....	221,482.00	221,482.00		22,388.54	18,542.44	3,846.10
Nevada.....	159,645.00	159,645.00		3,684.95	3,684.95	
Orange.....	488,730.00	482,619.01	6,110.99			
Placer.....	262,339.00	262,339.00		10,713.79	9,896.10	817.69
Plumas.....	253,393.00	253,393.00		233,934.09	233,934.09	
Riverside.....	937,060.00	860,430.97	76,629.03	123,559.13	123,487.69	71.44
Sacramento.....	569,976.00	521,251.10	48,724.90	1,931.47	1,931.47	
San Benito.....	182,901.00	181,852.65	1,048.35	2,530.72	2,530.72	
San Bernardino.....	1,708,114.00	1,707,516.80	597.20	4,362.15	4,362.15	
San Diego.....	741,124.00	739,086.72	2,037.28	273,500.00	273,496.66	3.34
San Joaquin.....	597,435.00	591,014.12	6,420.88	5,632.37	5,632.37	
San Luis Obispo.....	221,382.00	401,382.00		25,345.96	25,345.96	
San Mateo.....	230,138.00	230,138.00		241,471.96	241,471.96	
Santa Barbara.....	344,544.00	344,544.00				
Santa Clara.....	585,507.00	585,507.00		40,341.96	40,341.96	
Santa Cruz.....	207,674.00	201,371.84	6,302.16	2,709.04	2,709.04	
Shasta.....	415,501.00	415,501.00		57,534.60	57,534.60	
Sierra.....	127,446.00	127,446.00		1,988.66	1,988.66	
Siskiyou.....	599,980.00	599,980.00		143,551.58	143,551.58	
Solano.....	252,563.00	181,222.72	71,340.28	3,775.32	3,493.27	312.05
Sonoma.....	594,698.00	579,876.66	14,821.34	15,071.41	15,071.41	
Stanislaus.....	513,457.00	513,413.63	43.37	4,563.37	4,563.37	
Sutter.....	185,165.00	167,803.06	17,361.94	229,311.27	229,311.27	
Tehama.....	298,520.00	296,727.69	1,792.31	213,300.77	213,300.77	
Trinity.....	268,597.00	268,597.00		34,311.53	34,311.53	
Tulare.....	928,002.00	918,497.05	9,504.95	465,754.58	465,754.58	
Tuolumne.....	221,364.00	221,364.00		1,017.44	1,017.44	
Ventura.....	401,086.00	266,704.35	134,381.65			
Yolo.....	225,072.00	225,072.00		84,718.96	84,718.96	
Yuba.....	149,112.00	149,112.00		155,429.25	155,429.25	
County apportionments.....	\$25,489,279.00	\$24,758,907.84	\$730,371.16	\$4,395,937.48	\$4,387,047.36	\$8,890.12
Grade crossing protection.....	265,000.00	248,297.64	16,702.36			
Grade crossing projects.....	184,047.00	184,047.00		12,436.96	12,436.96	
	\$25,938,326.00	\$25,191,252.48	\$747,073.52	\$4,408,374.44	\$4,399,484.32	\$8,890.12

ACCESS HIGHWAYS BUDGET

Statement of Budgetary Transactions as of June 30, 1951

	Budget	Expenditures authorized work orders	Unencumbered balance available
Construction of highways			
North.....	\$6,719,752.68	\$6,709,815.04	\$9,937.64
Contributions—north.....	292.81	292.81	
South.....	7,069,073.74	7,033,762.14	35,311.60
Off State system—north.....	7,752,734.51	7,752,734.51	
Contributions—off State system—north.....	23,749.46	23,749.46	
Off State system—south.....	13,642,098.61	13,031,562.57	610,536.04
Contributions—off State system—south.....	307,861.88	307,861.88	
Totals.....	\$35,515,563.69	\$34,859,778.41	\$655,785.28

GRADE SEPARATIONS OPERATING BUDGET

Statement of Budgetary Transactions as of June 30, 1951

	Transfers from 97-98 F. Y.	Budgetary adjustments and contributions	Adjusted budget	Expenditures authorized work orders	Unencumbered balance available
Construction					
North.....	\$1,299,000.00	—\$352,200.00	\$946,800.00	\$946,800.00	
South.....		12,956.89	12,956.89	12,956.89	
Off State system.....	335,107.24	361,750.13	696,857.37	689,213.67	\$7,643.70
Off State system—con- tribution.....		150,000.00	150,000.00	150,000.00	
Grade crossing protection.....	120,000.00		120,000.00	109,299.28	10,700.72
Contingency reserve.....	21,900.79	—22,507.02	—606.23		—606.23
Totals.....	\$1,776,008.03	\$150,000.00	\$1,926,008.03	\$1,908,269.84	\$17,738.19

APPENDIX B

**APPORTIONMENT OF MOTOR VEHICLE FEES
AND FUEL TAXES**

- (a) Yearly Registration of Motor Vehicles in California
 - (b) County Apportionment of Funds Derived From Motor Vehicle Fees and Fuel Taxes, January 1, 1914, to June 30, 1951
 - (c) Apportionment of Funds Derived From Motor Vehicle Fees and Fuel Taxes, October 1, 1923, to June 30, 1951
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STATEMENT OF REGISTRATION OF MOTOR VEHICLES IN THE STATE OF CALIFORNIA FROM RECORDS OF THE DEPARTMENT OF MOTOR VEHICLES

	Fee paid registrations				Exempt registrations	Total registrations	Yearly increase	Percent increase over previous year
	Autos	Trucks	Trailers	Motor-cycles				
3/22/05-6/30/06.....	6,428					6,428		
7/ 1/06-6/30/08.....	17,015					17,015	10,587	164.70
7/ 1/08-6/30/10.....	36,146					36,146	19,131	112.44
7/ 1/10-6/30/12.....	76,669					76,669	40,523	112.11
7/ 1/12-12/31/13.....	122,444					122,444	45,775	59.70
1914.....	123,516			24,709		148,225	25,781	21.06
1915.....	164,795			26,401		191,196	42,971	28.39
1916.....	232,440			30,994		263,434	72,238	37.78
1917.....	306,916			30,417		337,333	73,899	28.05
1918.....	364,800		674	25,973		391,447	54,114	16.04
1919.....	477,450		1,658	26,072		505,180	113,733	29.06
1920.....	532,934	41,689	2,644	20,564	9,000	604,187	99,007	19.60
1921.....	645,522	35,092	3,421	17,729	11,721	713,485	109,298	18.09
1922.....	822,394	39,413	4,861	16,301	14,163	897,132	183,647	25.74
1923.....	1,056,756	43,527	5,808	14,694	16,660	1,137,445	240,313	26.79
1924.....	1,125,201	193,871	19,033	12,324	17,776	1,368,235	230,760	20.29
1925.....	1,224,831	214,571	25,453	10,997	22,280	1,498,132	129,927	9.50
1926.....	1,383,007	216,149	30,759	10,289	24,027	1,664,321	166,189	11.09
1927.....	1,479,411	213,784	34,126	9,444	26,108	1,762,873	98,552	5.92
1928.....	1,582,477	217,413	37,073	9,449	30,520	1,876,932	114,059	6.47
1929.....	1,855,308	89,033	42,899	9,628	35,275	2,062,143	185,211	9.87
1930.....	1,941,969	99,387	45,532	9,405	37,337	2,136,630	74,487	3.61
1931.....	1,938,068	105,213	55,024	8,970	38,199	2,145,474	8,844	0.41
1932.....	1,865,333	106,283	61,870	8,338	38,433	2,080,257	-65,217	-3.04
1933.....	1,850,608	108,189	69,987	8,134	38,507	2,075,425	-4,832	-0.23
1934.....	1,876,192	116,924	79,474	8,294	39,569	2,120,455	45,028	2.17
1935.....	2,015,018	135,722	95,227	8,861	25,657	2,280,485	161,032	7.55
1936.....	2,178,038	148,991	112,080	9,816	28,638	2,477,563	197,078	8.64
1937.....	2,319,341	164,132	132,927	11,240	29,593	2,657,233	179,670	7.25
1938.....	2,339,208	170,483	142,257	11,785	30,732	2,694,465	157,366	5.92
1939.....	2,422,322	182,825	155,304	13,247	33,875	2,807,573	113,108	4.20
1940.....	2,573,264	198,895	167,917	15,876	34,310	2,990,262	182,689	6.51
1941.....	2,740,101	221,146	184,096	18,051	35,305	3,198,699	208,437	6.97
1942.....	2,617,853	216,955	187,431	19,913	38,292	3,080,444	-118,255	-3.70
1943.....	2,533,436	215,465	176,257	19,414	41,224	2,985,796	-94,648	-3.07
1944.....	2,553,362	225,881	191,672	22,309	43,406	3,036,630	50,834	1.70
1945.....	2,604,789	248,388	238,490	27,173	44,536	3,163,376	126,746	4.17
1946.....	2,801,076	296,806	307,816	36,353	47,773	3,489,824	326,448	10.32
1947.....	3,113,329	363,225	349,743	53,234	54,564	3,934,095	444,271	12.73
1948.....	3,350,078	403,702	361,230	60,857	57,722	4,233,589	299,494	7.61
1949.....	3,671,466	429,725	355,575	57,475	65,254	4,579,495	345,906	8.17
1950.....	4,076,484	481,809	363,055	54,948	67,072	5,043,368	463,873	10.13
1951 to June 30.....	4,042,884	491,057	341,598	45,580	61,403	4,982,522		

NOTE: Prior to 1920 auto and truck registration was not segregated.

— Indicates decrease.

COUNTY APPORTIONMENTS OF FUNDS DERIVED FROM MOTOR VEHICLE FEES AND FUEL TAXES

County	County apportionment of motor vehicle fees Jan. 1, 1914 to Dec. 31, 1947	County apportionment of motor vehicle fuel tax, Oct. 1, 1923 to June 30, 1947	Subtotal of apportionments prior to operation of the Collier-Burns Act	County apportionment of funds pursuant to Collier-Burns Highway Act of 1947					Total apportionment Jan. 1, 1914 to June 30, 1951
				1948					
				July 1, 1947 to Dec. 31, 1947	1948	1949	1950	Jan. 1, 1951 to June 30, 1951	
Alameda.....	\$17,880,019.48	*\$21,003,804.11	\$28,892,823.59	\$543,026.07	\$2,045,584.36	\$2,252,228.77	\$2,353,569.02	\$1,186,483.46	\$37,273,715.27
Alpine.....	4,813.47	496,172.18	500,985.65	15,673.23	59,108.01	59,708.20	60,547.65	30,589.06	726,611.80
Amador.....	141,383.11	783,858.73	927,241.84	40,594.64	146,789.67	148,162.51	150,859.21	75,622.11	1,489,309.98
Butte.....	855,623.82	2,500,072.44	3,355,686.26	149,267.75	504,582.79	526,106.39	543,250.51	271,694.62	5,350,598.32
Calaveras.....	137,787.20	783,901.09	921,688.29	68,974.91	225,897.92	231,303.33	235,448.68	117,577.13	1,800,830.26
Colusa.....	298,037.71	999,340.32	1,267,378.03	80,394.62	257,775.36	266,626.52	275,118.73	137,237.58	2,284,530.84
Contra Costa.....	11,682,284.96	*5,032,328.32	6,714,613.28	192,816.54	747,148.29	845,998.33	913,010.63	472,893.21	9,886,480.34
Del Norte.....	84,990.28	*668,818.46	753,808.74	21,751.68	81,730.29	87,303.08	91,681.33	46,872.80	1,083,147.92
El Dorado.....	191,583.41	924,170.57	1,115,783.98	79,916.51	273,932.02	286,563.19	293,017.52	145,977.06	2,195,161.28
Fresno.....	3,702,179.76	8,957,095.06	12,659,274.82	415,273.64	1,414,642.18	1,509,793.36	1,575,802.47	793,281.72	18,368,068.19
Glenn.....	307,550.17	*1,106,746.94	1,414,297.11	95,133.02	304,144.29	317,224.76	326,392.32	162,591.24	2,619,782.74
Humboldt.....	819,005.20	2,434,113.52	3,253,118.72	120,370.39	475,469.16	483,313.18	449,958.00	226,544.18	4,895,763.63
Imperial.....	1,126,820.51	*3,130,885.95	4,266,706.46	210,243.91	749,604.76	749,309.46	799,873.70	407,120.93	7,106,919.22
Inyo.....	165,264.51	808,837.49	974,102.00	110,241.41	342,302.99	352,099.36	364,590.90	183,255.80	2,326,692.46
Kern.....	12,339,878.22	*6,262,247.79	8,602,126.01	319,234.05	1,114,288.52	1,166,424.56	1,206,611.07	618,151.37	13,026,835.58
Kings.....	662,120.57	1,999,351.32	2,661,471.89	122,562.36	408,587.81	423,082.73	434,267.97	217,443.73	4,267,416.49
Lake.....	175,418.34	869,516.00	1,044,934.34	59,231.46	198,588.22	204,808.41	211,483.63	105,489.00	1,821,635.06
Lassen.....	229,743.09	998,979.92	1,228,723.81	124,488.06	387,260.77	405,543.91	418,848.89	209,577.61	2,775,383.25
Los Angeles.....	144,755,740.06	*120,557,784.91	165,343,524.97	3,441,999.89	13,665,594.38	13,859,947.05	14,806,320.31	7,550,596.56	218,046,883.16
Madera.....	394,016.66	1,417,226.81	1,811,243.47	138,647.21	442,900.65	460,202.75	478,997.42	239,552.95	3,571,543.85
Marin.....	677,187.51	2,234,401.47	2,911,588.98	68,338.36	264,240.29	280,097.66	313,809.17	158,314.44	4,005,317.90
Mariposa.....	75,548.75	661,127.43	736,676.18	54,257.89	177,488.27	189,318.04	196,228.19	97,568.09	1,450,567.66
Mendocino.....	432,033.04	1,477,474.99	1,909,508.03	109,532.97	358,894.13	376,785.91	393,342.84	197,227.61	3,347,291.49
Merced.....	807,093.21	2,507,317.66	3,314,410.87	199,907.15	646,996.18	688,870.23	744,630.28	359,757.17	5,924,571.88
Modoc.....	138,593.51	767,911.66	906,475.17	78,194.81	255,539.38	264,872.54	285,284.89	146,750.73	1,935,117.52
Monterey.....	25,915.20	546,887.71	572,802.91	59,897.16	191,038.20	211,521.34	224,718.20	112,668.70	1,372,646.51
Napa.....	1,130,162.04	*3,508,491.55	4,638,653.59	150,729.66	535,422.86	573,103.68	601,380.53	304,009.41	6,803,299.73
Nevada.....	505,579.57	1,675,802.94	2,181,382.51	55,310.93	203,550.91	219,108.44	230,890.85	114,676.49	3,004,978.13
Orange.....	228,412.79	1,037,126.96	1,265,539.75	52,164.79	179,037.20	187,655.87	198,554.21	97,924.18	1,979,176.00
Orange.....	2,734,226.35	*7,245,547.46	9,979,773.81	205,712.46	784,894.24	836,128.93	898,553.15	456,574.46	13,161,007.05

Placer.....	510,333.73	1,701,558.77	2,211,912.50	85,413.99	296,098.16	308,223.70	318,779.91	159,445.46	3,379,873.72
Plumas.....	143,645.55	807,993.59	951,639.14	64,925.04	212,720.37	220,884.98	225,335.36	112,908.49	1,788,417.38
Riverside.....	1,788,157.86	5,075,677.39	6,863,795.25	336,686.13	1,032,081.74	1,041,891.51	1,083,538.85	547,763.79	10,905,757.27
Sacramento.....	2,798,154.25	7,905,219.95	10,763,374.20	247,064.62	921,666.65	998,179.06	1,059,334.30	540,694.69	14,470,313.52
San Benito.....	253,474.18	1,011,193.60	1,264,667.78	46,974.23	162,449.34	168,637.21	173,409.36	87,050.24	1,905,188.16
San Bernardino.....	2,680,208.84	*7,427,714.09	10,107,922.93	390,264.00	1,387,499.94	1,476,129.12	1,544,075.96	771,579.47	15,877,471.42
San Diego.....	4,594,698.16	*12,784,376.18	17,384,074.34	405,596.28	1,554,203.90	1,710,545.03	1,809,569.14	920,013.10	23,784,001.79
San Francisco.....	3,496,430.50	*20,838,038.77	29,334,969.37	505,984.44	1,931,881.20	2,046,071.77	2,143,641.28	1,061,468.44	37,023,516.40
San Jose.....	2,396,974.84	6,301,931.53	8,693,496.27	206,141.95	732,353.86	793,388.00	847,605.87	423,486.63	11,701,882.68
San Luis Obispo.....	687,380.04	*2,135,785.38	2,624,165.42	137,553.55	446,090.25	484,358.83	500,633.08	251,258.40	4,461,359.53
San Mateo.....	1,524,891.92	*4,716,024.61	6,240,916.53	158,721.87	633,239.38	729,433.40	805,801.69	421,696.92	8,989,809.79
Santa Barbara.....	1,377,382.61	*8,832,231.22	5,223,613.83	107,329.53	402,030.12	419,119.10	440,289.09	232,051.46	6,830,433.13
Santa Clara.....	3,220,645.21	8,568,925.90	11,778,571.11	240,234.51	933,160.72	1,042,104.10	1,106,792.14	586,376.30	15,075,238.88
Santa Cruz.....	848,701.56	*2,598,065.57	3,446,767.13	80,373.26	299,502.39	325,151.55	344,044.61	171,788.58	4,667,627.52
Shasta.....	398,125.70	*1,436,902.91	1,835,028.61	123,271.93	407,259.91	425,568.14	441,033.69	221,166.36	3,453,328.64
Sierra.....	44,164.23	581,674.89	825,839.12	30,484.97	104,295.10	106,839.61	108,842.33	54,192.38	1,030,493.51
Siskiyou.....	466,805.43	*1,595,009.49	2,061,814.92	156,222.29	491,982.05	544,496.77	550,484.30	267,498.17	4,072,498.50
Solano.....	913,226.39	*2,765,443.73	3,673,670.12	99,238.38	351,183.16	380,643.40	406,033.36	205,400.56	5,121,474.98
Sonoma.....	1,495,669.66	*4,069,015.23	5,564,684.89	155,595.71	557,306.20	588,084.14	611,180.85	307,763.88	7,785,188.67
Stanislaus.....	1,574,418.86	4,232,823.42	5,807,242.28	206,103.65	731,510.44	704,713.33	791,636.37	396,775.10	8,997,981.17
Sutter.....	351,821.48	1,292,193.00	1,644,014.48	94,575.38	309,792.55	321,116.65	329,709.24	164,559.52	2,863,747.82
Tehama.....	313,208.39	*1,160,589.83	1,473,798.22	106,342.09	338,573.60	349,993.45	359,315.63	179,602.37	2,807,825.36
Trinity.....	45,468.77	*697,521.43	642,980.20	72,631.86	228,166.33	237,016.18	233,915.80	122,537.07	1,547,847.44
Tulare.....	1,936,965.44	5,103,374.58	7,040,340.02	344,595.80	1,134,536.65	1,175,450.29	1,224,983.16	614,071.40	11,533,977.32
Tuolumne.....	185,359.59	*879,347.76	1,064,687.34	55,007.10	185,178.85	189,452.44	193,916.68	97,092.76	1,785,935.17
Ventura.....	1,135,886.23	*3,372,308.22	4,808,194.45	105,980.42	399,529.55	415,452.22	451,046.59	225,606.08	6,105,809.31
Yolo.....	577,839.93	*1,802,873.82	2,380,713.75	101,098.55	332,925.17	344,768.37	357,772.31	179,115.01	3,696,393.19
Yuba.....	323,925.88	*1,199,991.69	1,623,917.57	58,943.97	204,709.77	214,727.65	222,892.35	111,282.56	2,330,473.87
Totals.....	\$112,801,938.53	*\$319,227,108.30	\$433,029,046.83	\$12,110,311.93	\$43,440,039.15	\$46,245,205.49	\$48,739,926.66	\$24,638,218.59	\$608,292,748.65

† Deduct the following amounts for reimbursement of the Department of Motor Vehicles for salaries paid highway crossing guards: 1945-1946 Contra Costa, \$1,574.84; Kern, \$5,233.80; Los Angeles, \$111,750.68; Santa Barbara, \$2,069.70; 1947 Alameda, \$1,618.00; Contra Costa, \$1,263.30; Kern, \$1,604.00; Los Angeles, \$35,735.00; Santa Barbara, \$1,959.00.

* Includes repayment of unemployment relief loans to county as provided in Section 23 of Chapter 207, Statutes of 1933 (for tabulation see First Annual Report).

APPORTIONMENT OF FUNDS DERIVED FROM MOTOR VEHICLE FEES AND FUEL TAXES†

	To counties	To State Highway Maintenance Fund	To State Highway Construction Fund	To State Highway Fund				Total	Total registration	Average per vehicle
				To Division of Highways	¼ cent to cities for state highways	¼ cent to cities for major streets	To city streets			
Oct. 1, 1923-Dec. 31, 1923	\$1,389,257.80	\$1,389,257.80						\$2,778,515.60	1,368,205	\$9.04
Jan. 1, 1924-Dec. 31, 1924	6,182,518.97	6,182,518.96						12,365,037.93	1,498,132	9.60
Jan. 1, 1925-Dec. 31, 1925	7,194,051.54	7,194,051.54						14,388,103.08	1,664,321	15.62
Jan. 1, 1926-Dec. 31, 1926	8,260,360.86	8,260,360.86						16,520,721.72	1,702,873	12.76
Jan. 1, 1927-Dec. 31, 1927	9,349,534.81	9,349,534.82	\$3,788,324.00					22,487,403.63	1,876,932	16.39
Jan. 1, 1928-Dec. 31, 1928	9,839,491.88	9,839,491.90	9,637,204.99					29,316,188.77	2,062,143	16.39
Jan. 1, 1929-Dec. 31, 1929	11,319,524.47	11,319,524.47	11,155,181.54					33,794,230.48	2,136,630	17.42
Jan. 1, 1930-Dec. 31, 1930	11,858,452.77	11,858,452.77	11,857,797.56					35,574,633.30	2,145,474	17.42
Jan. 1, 1931-Dec. 31, 1931	10,451,671.52	10,451,671.51	10,451,671.55					31,355,014.56	2,080,257	16.92
Jan. 1, 1932-Dec. 31, 1932	12,079,972.95	12,079,972.95	12,079,972.95	\$10,827,263.41	\$1,546,517.91			36,233,918.86	2,075,425	17.12
Jan. 1, 1933-Dec. 31, 1933	11,706,298.32	5,519,290.65		21,171,222.82	3,024,460.41			35,118,894.95	2,120,453	17.12
Jan. 1, 1934-Dec. 31, 1934	12,927,841.61			21,420,000.91	3,319,901.49	\$1,819,242.94		36,293,524.84	2,280,485	17.31
Jan. 1, 1935-Dec. 31, 1935	13,277,072.67			21,434,808.98	3,572,457.05			42,869,584.62	2,657,293	17.45
Jan. 1, 1936-Dec. 31, 1936	14,286,801.54			23,178,837.35	3,863,139.56	3,863,139.56		46,357,674.70	2,694,465	17.53
Jan. 1, 1937-Dec. 31, 1937	15,452,558.23			23,320,762.20	3,886,793.70	3,886,793.70		46,641,524.40	2,990,262	17.81
Jan. 1, 1938-Dec. 31, 1938	15,547,174.80			24,608,405.25	4,101,400.88	4,101,400.88		49,216,810.52	3,108,699	17.81
Jan. 1, 1939-Dec. 31, 1939	16,405,003.51			25,586,081.66	4,264,346.94	4,264,346.94		51,172,163.30	3,189,689	17.05
Jan. 1, 1940-Dec. 31, 1940	17,057,387.76			28,484,036.88	4,747,339.49	4,747,339.49		56,968,073.78	3,086,444	13.92
Jan. 1, 1941-Dec. 31, 1941	18,989,357.93			26,266,843.62	4,377,807.27	4,377,807.27		52,533,687.22	2,985,796	13.78
Jan. 1, 1942-Dec. 31, 1942	17,511,229.06			20,781,947.23	3,463,657.86	3,463,657.86		41,563,894.42	3,163,376	15.68
Jan. 1, 1943-Dec. 31, 1943	13,554,631.47			20,825,604.36	3,487,600.73	3,487,600.73		41,851,208.73	3,489,824	14.40
Jan. 1, 1944-Dec. 31, 1944	13,950,492.91			24,802,247.59	4,133,707.89	4,133,707.89		49,604,495.05	3,934,095	14.40
Jan. 1, 1945-Dec. 31, 1945	16,831,681.68			34,233,238.25	5,705,539.71	5,705,539.71		68,466,476.50	4,233,589	30.93
Jan. 1, 1946-Dec. 31, 1946	22,822,158.83			28,685,223.41	7,189,962.57	7,189,962.57		56,635,866.97	4,579,495	36.81
Jan. 1, 1947-Dec. 31, 1947*	19,030,607.18			70,431,664.33				130,928,265.26	5,043,368	34.88
Jan. 1, 1948-Dec. 31, 1948†	43,440,093.15			18,104,539.64				168,574,737.10		
Jan. 1, 1949-Dec. 31, 1949	46,245,205.48			18,997,375.44				174,901,026.65		
Jan. 1, 1950-Dec. 31, 1950	48,739,926.66			107,103,724.55				115,603,572.86		
Jan. 1, 1951-June 30, 1951	24,632,218.59			81,498,208.84						
Totals	\$501,321,099.37	\$93,444,128.23	\$64,489,383.43	\$736,713,904.23	\$58,176,443.79	\$57,564,461.67	\$17,056,567.78	\$1,575,375,049.01		
\$Includes \$2,500.00 appropriated for the Code Commission by Chapter 698, Statutes 1935.										
4-year average of 2 cents tax. ---										
16.67										
4-year average of 4½ cents tax										
29.21										
\$10.33										

2-cent tax per gallon from October 1, 1923, to July 28, 1927. Apportioned 1 cent to counties, 1 cent to State Highway Maintenance Fund.

3-cent tax per gallon from July 29, 1927, to June 30, 1933. Apportioned 1 cent to counties, 1 cent to State Highway Maintenance Fund, 1 cent to State Highway Construction Fund.

3-cent tax per gallon from July 1, 1933, to June 30, 1935. Apportioned 1 cent to counties, $\frac{1}{4}$ cent to State Highway Fund, $\frac{1}{4}$ cent to cities for state highways.

3-cent tax per gallon from July 1, 1935, to July 31, 1947. Apportioned 1 cent to counties, $\frac{1}{4}$ cent to Division of Highways, $\frac{1}{4}$ cent to cities for state highways, $\frac{1}{4}$ cent to cities for streets of major importance.

4½-cent tax per gallon from July 1, 1947. Fuel tax apportioned 1½ cents to counties, 2½ cents to Division of Highways, ½ cent to city streets.

* Apportionments for the last half of 1947 were made to effect the transition from former acts to operation under the Collier-Burns Act.

† Apportionments beginning with January 1, 1948, were made according to the Collier-Burns Highway Act of 1947.

‡ Apportionments prior to July 1, 1947, were made from fuel taxes only.

APPENDIX C

CONTRACT STATISTICS

(a) Completed Contracts—July 1, 1946, to June 30, 1951.

(b) Incomplete Contracts—June 30, 1951.

NOTE: For contracts completed prior to July 1, 1946, see Fifteenth Biennial Report.

NOTE: * opposite a contract indicates final cost figures not yet available.

COMPLETED CONTRACTS—June 30, 1951

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
4T48	Alameda	5	A	Near Greenville	---	11/21/46	Day Labor	Truck Scale	\$12,000	---	\$12,000
4TC35	Alameda	5	B	San Miguel Ave-Parkway	0.4	5/16/47	McGuire & Hester	Storm Drain	22,659	\$1,697	24,347
4TC49	Alameda	5	B	At Redwood Road	0.3	4/22/48	J. R. Armstrong	Signals & Channelization	37,640	6,821	44,461
4WC39-P	Ala. C.C.	5, 107	B, A	Hayward to Dublin & Danville to 3.1 Mi. south	5.3	6/ 7/47	J. R. Armstrong	Plant-Mixed Surfacing	151,774	14,611	166,385
4TC25	Alameda	5, 69	B, C, B	Bet. Dublin & Mission San Jose & Bet. Alvarado & San Leandro	7.6	6/ 7/46	A. S. Jones	Repair with C.R.B. & P.M.S.	161,255	16,747	178,002
51-4TC23	Alameda	5	B	At the Intersection of Rte. 5 and San Miguel Ave. in Castro Valley	0.2	12/ 5/50	Gallagher & Burk, Inc.	Surface & Install Signal System	26,096	4,000	*30,096
4WC22	Alameda	5, 69	C, A	Bet. Warm Springs & Mission San Jose & Bet. Warm Springs & Conterville	8.3	3/11/46	A. S. Jones	Repair Shoulders	40,118	8,925	49,043
1-4TTC10	Alameda	5	D	Foothill Blvd. at 150th Ave.	---	10/11/49	L. H. Leonardi Electric Const. Co.	Signals & Lighting	12,997	1,600	*14,597
1-4TC77	Alameda	5	D, B	Castro Valley Jct. to San Leandro	3.3	4/ 1/49	Lee J. Immel	Surfacing	246,406	30,003	*276,406
1-4TC86-F	Alameda	5	E, F, B	Greenville to 1.5 Mi. W. of Livermore	5.8	6/22/49	Harns Bros. and N. M. Ball & Sons	Grade, Surface & Install Lighting	935,802	101,000	*1,036,802
0-4TC72	Alameda	5	F	1.5 Mi. E. to 1.7 Mi. W. of Livermore	3.2	10/19/48	Dan Caputo & Ed Keeble	Grade & Structures	496,837	65,000	*561,837
4T124	Alameda	5	Env Oak	San Pablo Ave. Overpass	0.4	11/18/49	Day Labor	P.M.S. Blanket	10,543	---	10,543
4T114	Alameda	5	Hav	"A" St. to "B" St.	---	2/ 3/49	Day Labor	Grade & Surface	10,851	1,592	12,453
4T123	Alameda	5	Hav	"B" St. to "C" St.	---	11/16/49	Day Labor	Improving Shoulders	5,488	986	*6,474
4TC41	Alameda	5	Oak	Toll Plaza to Distribution Structure	0.9	6/18/47	Chas. L. Harney, Inc.	Additional Traffic Lanes	144,556	11,609	156,465
4TC43-P	Alameda	5	Oak	Bay Bridge Toll Plaza	0.6	9/ 8/47	San Francisco Br. Co.	Sand Fill	384,718	17,569	402,280
4TC44-P	Alameda	5	Oak	Bay Bridge Toll Plaza	0.6	9/12/47	Pombo Const. Co.	Slope Protection	129,890	13,734	143,624
0-4TTC52	Alameda	5	Oak	Toll Plaza	---	7/22/48	Stolte Inc. & Duncanson Harrelson Co.	Toll Facilities	166,277	10,811	*177,088
15T3	Ala. S.F.	5, 68	Oak-S.F.	See San Francisco County	---	---	---	---	---	---	---
15T5	Ala. S.F.	5, 68	Oak-S.F.	See San Francisco County	---	---	---	---	---	---	---

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-4TC67	Alameda	5	Oak	San Francisco-Oakland Bay Bridge Toll Plaza	0.7	8/25/48	Lee J. Immel	Grade, P.M.S. & Light System	\$195,663	\$21,200	*\$218,863
1-4TTC12	Alameda	5	Oak	Intersecting MacArthur Blvd., Foothill Blvd., & 73d Ave.		1/17/50	L. H. Leonardi Electric Const. Co.	Signals & Lighting	13,356	2,650	*16,006
14TMC2	Alameda	5, 69	Oak	At Distribution Structure		8/11/48	Pacific Br. Painting Co.	Waterproof & Paint Bridge	43,557		43,557
4T42	Alameda	14, 5	Envy	In Emeryville		9/20/46	Day Labor	Signals	14,676	591	15,267
0-4TC68	Alameda	69	A, B, SIn	Centerville to San Leandro	6.7	8/3/48	Granite Const. Co.	Base and Surface	180,503	25,000	*205,503
4W37	Alameda	69	B	In San Lorenzo Village		10/29/46	Day Labor	Traffic Signals	5,974	371	6,345
1-4TC76	Alameda	69	B	Alvarado to San Leandro	5.4	4/1/49	Clemens & Co.	Resurf. & Sidlrs.	158,256	25,000	*183,256
4TC23	Ala. C.C.	69, 14	Alb, Reh, ECr, A, Pin, Her, B	Bet. El Cerrito Hill Overhead in Albany & Carquinez Bridge	10.5	5/23/46	J. R. Armstrong Const. Co.	Repair with C.R.B., P.M.S. & Fene. Tr. & Construct Devel-erating Lane	58,410	6,832	65,242
1-4TC90-P	Alameda	69	Alb	Cerrito Creek		7/7/49	J. R. Armstrong	Culvert & Detours	39,812	6,725	*46,537
51-4TC27-P	Ala. C.C.	69	Ber, Reh	At University Ave., Central Ave. & Carlson Blvd.		1/10/51	Lee J. Immel	Signals & Channelization	29,561	4,500	*34,061
4WC31-F	Alameda	69	Oak	1 Mi. N. of S.C.L. of Oakland to 0.3 Mi. S. of High St.	2.3	6/25/47	Johnson-Western, Co. & Amer. Pipe & Const. Co.	Grade	861,826	60,100	921,926
14WC8	Alameda	69	Oak	5th Ave. Overhead		6/21/46	Duncanson-Harrelson Co. & Stolte, Inc.	Overcrossing	1,968,491	84,709	1,953,200
14WC11-F	Alameda	69	Oak	At 26th Ave. in Oakland		6/27/47	Lew Jones Const. Co.	Overcrossing	155,881	13,230	169,111
14WC9	Alameda	69	Oak	At Fruitvale Ave.		12/9/46	S. J. Ameroso Const. Co.	Substructure of Overcrossing	401,531	33,946	435,477
4TMC3	Alameda	69	Oak	Cypress St. from Dist. Strcut. to 7th St.		3/11/46	Lee J. Immel	Widens & Surface	150,410		150,410
14TC31-F	Alameda	69	Oak	19th Ave.		10/22/47	Carl N. Swenson, Inc.	Overcrossing & Approaches	403,380	31,019	434,399
0-14TC37-F	Alameda	69	Oak	Elmhurst Cr., Damon Slough, & East Creek Slough		4/1/48	E. H. Peterson & Son	Construct 3 Bridges	240,545	16,251	256,796
4T102	Alameda	69	Oak	14th and 23d Avenues		3/17/48	Day Labor	Storm Drains	45,500		45,500
14WC12-F	Alameda	69	Oak	At Fruitvale Ave.		8/13/47	J. H. Pomeroy & Co., Inc.	Superstructure for Steel Overcrossing	635,266	18,228	653,514

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
14WC10-F	Alameda	69	Oak	At 23d Ave.		6/16/47	A. Soda & Son.	Overcrossing	\$468,475	\$30,173	\$498,648
0-4TC83-F	Alameda	69	Oak	S.C.L. to High St.	3.3	5/20/49	Frederickson & Watson Const. Co.	Grade, Pave & Structures	1,373,439	125,550	*1,498,989
1-14TC64-F	Alameda	69	Oak	At High St.		4/ 1/49	A. Soda & Son.	Overhead	676,749	68,000	*744,749
0-4TC48-F	Alameda	69	Oak	Bet. 38th Ave. & Oak St.	2.9	4/ 1/48	Frederickson & Watson Const. Co.	Grade & Surface	1,467,139	179,000	*1,646,139
0-14TC53-F	Alameda	69	Oak	Bet. 50th Ave. and 38th Ave. on East-shore Freeway	0.7	8/ 3/48	Johnson, Drake, & Piper	Grade, Pave, and Structures	1,534,084	200,000	*1,734,084
4T116	Alameda	69, 105	Oak	At the Intersections of 5th & Oak Sts., 6th & Oak Sts., and 7th & Madison Sts.		6/24/49	Day Labor	Install Signals & Lighting	13,681		*13,681
1-14TC84-F	Alameda	69	SLn, Oak	Across San Leandro Creek & S.P.R.R. Tracks at South City Limits of Oakland.		1/10/50	C. B. Tuttle Co.	Bridge and Overhead	664,072	48,500	*712,572
0-4TTC4	Alameda	105	B	E. 14th St.		11/19/48	L. H. Leonardi Elec. Const. Co.	Signals & Lighting	41,427	2,878	44,305
4WC27	Alameda	105	B	On E. 14th St. bet. Plaza Dr. & 158th Ave.		12/10/46	Wheeler Const. Co.	R. C. Culvert	11,716	2,826	14,542
1-4TC78	Alameda	105, 5	Hay	Through Hayward	1.8	4/ 1/49	Lee J. Immel	Plant Mixed Surface	82,574	15,000	*97,574
1-4TC95	Alameda	107	A	Rosewars Undergirding, 1.5 Mi. E. of Niles		10/25/49	Elmer J. Warner	Grade & Surface	63,513	8,600	*72,113
14WLC33	Alameda	107	A	At Alameda Creek		6/22/46	R. G. Clifford & Louis Biasotti & Son.	Bridge & Overcrossing	416,828	40,929	457,757
1-14TTC3	Alameda	108	A	Vallecitos Cr., 9 Mi. SW. of Livermore		3/28/50	Lew Jones Const. Co.	Repair Bridge	3,353	900	*4,253
1-4T1	Alameda	227	Oak	Rte. 75 to Park Blvd.	2.3	8/26/48	Day Labor	Grade, Pave & Structures	375,000		375,000
4ANC14	Alameda	Oak	Airport	Bet. Maitland Dr. & Earhart Rd. in Aux. Naval Air Sta.	0.2	7/10/46	Gallagher & Burk.	Repair with P.M.S. & Construct Shldrs.	4,150	804	4,954
4DC10	Ala. C. C.	FAS 801		Crow Canyon Rd.	1.8	7/ 8/48	Louis Biasotti & Son.	Grade & Pave	218,599	26,317	244,916
4DC11	Alameda	FAS 1023		On Jarvis Rd. bet. Dumbarton Rd. & Rte. 69	3.4	7/29/48	Clements & Co.	Surfacing	158,927	5,000	*163,927
51-4DC1	Alameda	FAS 1023		Bet. Alvarado and 3 Mi. Southeastly	2.8	7/20/50	Clements & Co.	Grade, Imported Borrow, & P.M.S.	155,474	19,000	*174,474

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
4DC1	Alameda	FAS 1030		On "A" St. & Redwood Rd. Bet. San Lorenzo Cr. Bridge & Proctor Rd.	2.7	7/26/46	Hayward Bldg. Matl. Co.	Grading & Surfacing	\$144,486	\$1,534	\$146,020
0-4TTC5P	Ala. S.M.	Var	Var	Various Locations		12/ 3/48	R. O. Ferguson Co.	Signals & Lighting	31,835	2,900	34,735
	Alameda			Various Locations				Minor Contracts & D.L. Projects	55,803		55,803
10DC7	Alpine	FAS 959		7 Mi. E. of Markleeville to Mono Co. Line	5.5	7/ 6/49	Arthur B. Siri, Inc.	Grade & Drainage Facilities	79,022	13,000	*92,022
	Alpine			Various Locations				Minor Contracts & D.L. Projects	110		110
0-10TC40	Amador	34	F	Cooks Sta. to E. of Hans Sta.	3.6	11/17/48	Westbrook & Pope	Grade & Surface	161,135	10,348	171,483
10WC18P	Amador	34, 65	Jkn, C	N. of Jackson to E. & S. of Jackson	2.3	6/ 9/47	Fredrickson Bros.	Grade, Surface & Structures	543,649	57,955	601,604
14WLC52 10T65	Amador	65	C, A C	See Calaveras							
	Amador	65	Ply	0.6 Mi. to 1.2 Mi. N. of Mokelumne River	0.6	4/ 6/48	Day Labor	Surface	19,941	1,292	*21,233
51-10TC1	Amador	65		N.C.L. to S.C.L. Plymouth	0.9	4/ 1/50	P. J. Moore & Son	Surface	17,889	4,000	*21,889
10DC2	Amador	FAS 951		3.7 Mi. Ely of Pine Grove to N. Fork Mokelumne River	4.7	7/30/47	A. Teichert & Son, Inc.	Grade & Surface	196,725	26,305	223,030
	Amador			Various Locations				Minor Contracts & D.L. Projects	11,288	20	11,308
1-3TC89 0-3TC51P	Butt. Sut. Butt. Sut.	3 3	A A, Grd. A, LiO	See Sutter County							
	Butte	3	B, C, Che	See Sutter County							
3TC24	Butte			Bet. Oroville Wye & Nelson, Bet. Durham R.R. Xing & Chico, & Bet. Big Chico Creek & Sixth St. in Chico.	11.8	5/16/46	Lester L. Rice	P.M.S. on C.R.B. & Construct Shldrs.	108,024	7,052	115,076
1-14TC82	Butte	3	B	Hamilton Slough & Biggs Extension Canal		11/ 9/49	Huetig, Schromm, & Bennett	Bridge & Approaches	35,849	10,500	*46,349
0-3TC49P	Butte	3, 47	C, Che, D, Che	3 Locations, in and near Chico.	15.6	4/ 1/48	McGillivray Const. Co.	Grade & Surface	170,310	7,741	178,051
1-3TTC3-P	Butte	3, 47	Che	In Chico		11/10/49	Clinton Electric Corp.	Signals & Lighting	20,364	900	*21,264

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-3TC57	Butte	21	B	Oroville to Feather River	4.1	4/12/49	Rice Bros., Inc.	Surface & Seal Coat.	\$59,867	\$7,500	*\$67,367
2T42	Butte	21	C	Jarboe Pass-Plumas County Line	1.5	4/17/47	Day Labor	Resurfacing	6,477	71	6,548
51-14TC1	But. Gle	45	A, C	See Glenn County							
51-14TC20	Butte	45	A	Across Tule Canal							
51-3TC3	Butte	87	A	0.7 Mi. N. of Yuba Co. Line to Union School		11/ 2/50	B. S. McElderry	Widen Bridges	19,815	7,000	*26,815
51-14TC18	Butte	87	A	Across Oak Knob Draw 6.7 Mi. S. of Oroville	8.2	5/17/50	M. J. Ruddy & Son	Plant Mix Surface	121,918	15,000	*136,918
1-14TC66	Butte	87	B	Butte Creek		10/26/50	C. C. Gildersleeve	Widen Bridge & Approaches	7,383	1,880	*9,263
3DC11	Butte	FAS 757				5/12/49	Low Jones Const. Co.	Bridge Repair	18,365	1,489	19,854
3DC20	Butte	FAS 757		2 Mi. E. of Chico to Paradise	9.2	11/19/48	Granite Const. Co.	Grade, Surface & Structure	387,889	32,810	420,699
3DC14	Butte	FAS 758		2 Mi. E. of Chico to Paradise	9.2	5/ 9/50	A. G. Raich Co.	Plant Mix Surface	112,175	5,064	117,239
3DC16	Butte	FAS 759		Cherokee Canal to Pennington Road	3.7	6/ 7/49	W. H. O'Hair Co.	Grade, Surface & Widen 2 Brs.	106,151	12,500	*118,651
14DC3	Butte	FAS 1046		Oroville - Wyandotte Rd. to Oroville - Quincy Highway	2.3	6/22/49	Richter Bros.	Grade & Install Culverts	48,812	7,900	*56,712
	Butte			Across South Fork of Feather River at Bidwell's Bar		3/26/47	Dey Contracting Co.	Bridge	106,035	13,472	119,507
	Butte			Various Locations				Minor Contracts & D.L. Projects	10,248	21	10,269
0-10TC33	Calaveras	24	B	2.6 Mi. E. to 4.9 Mi. E. of Valley Springs	4.2	4/29/48	A. Teichert & Son, Inc.	Surfacing	104,733	6,817	111,550
14WLC35	Calaveras	24	Ang	Across Angels Creek		6/24/46	J. Henry Harris	Concrete Bridge & Approaches	39,007	4,285	43,292
1-14TC75	Calaveras	65	A	Murray Creek		8/10/49	S. C. Lefever & D. Gerald Bing	Const. Bridge & Appr.	51,775	5,407	57,182
14WLC52	Cal. Ana	65	A, C	Across Mokelumne River		6/ 4/47	Charles Scott	Bridge Repair	6,515	529	7,044
14WC7	Calaveras	65	B	About 9 Mi. N. of Angels Camp		6/11/46	Bati Rocca	Construct Cattle Pass	4,787	1,548	6,335
10AN15	Calaveras	Access		Bet. Sandy Gulch Mill Pond & J. P. Lodge Rd.		5/22/45	Day Labor	Purchase Oil & Provide Engineering	5,450		5,450

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
10AN21	Calaveras	Access		Toyon to West Point	15.6	10/18/46	Day Labor	Repairs	\$26,107	\$828	\$26,935
10DC1	Calaveras	FAS 952		Route 65 to Mountain Ranch	8.9	7/11/47	Louis Biasotti & Son	Grade & Surface	171,770	16,600	*188,370
	Calaveras			Various Locations				Minor Contracts & D.L. Projects	13,852		13,852
3796	Colusa	7	A	Arbuckle to 0.6 Mi. S. of Geneva	3.0	5/12/47	Day Labor	Improve Shldr.	10,834	30	10,864
3TC22	Colusa	7	A, B	Bet. 3 Mi. N. of Arbuckle & 4 Mi. S. of Williams	3.3	2/ 5/46	Harms Bros.	Grading & Plant Mixed Surfacing	220,143	34,347	254,490
1-3TC58	Col, Glenn	7	B, Wms, C, A	S. of Williams to S. of Willows	26.3	4/19/49	Westbrook & Pope	B.S.T. to Shoulders	32,998	5,600	*38,598
3TC31	Colusa	7	Wms	Bet. 239 Ft. S. of "F" St. & "D" St. in Williams	0.3	8/19/46	Harms Bros.	Repairs with P.M.S.	4,805	457	5,262
14DC10	Colusa	FAS 758		Sacramento River at Colusa		4/21/47	Lord & Bishop	Repair Bridge	133,585	6,878	140,463
3DC7	Colusa	FAS 1033 1035 1036		Williams to Stone Corral Creek	8.6	9/23/47	Frederickson & Kasler	Grade & Imported Borrow	83,300	790	84,090
	Colusa			Various Locations				Minor Contracts & D.L. Projects	1,571	147	1,718
COF-8	C.C. Sol.	7	A, F	On Carquinez Bridge		3/25/47	Minton & Kubon	Railings	26,534		26,534
COFC-2	Contra Costa	7	A	Carquinez Strait		1/ 4/49	Ben. C. Gerwick, Inc.	Repair Fender	57,018		*57,018
COFC-4	C.C. Sol.	7	A, F	Over Carquinez Strait at Crockett		7/22/49	Crabbe Electric	Install Electrical Equipment	8,693		*8,693
COFC-3	C.C. Sac.	11	A, C	Antioch, San Joaquin River		7/22/49	Pacific Bridge Co.	Clean & Paint Bridge (Portions)	24,255		*24,255
COFC1	Contra Costa	11	A	San Joaquin River at Antioch		6/ 8/48	H. F. Lauritzen	Repair Bridge	4,456		4,456
4TC23	C.C.-Ala.	14, 69	A, Pin, Her, B, EC, Reh, Alb	See Alameda County							
4TC29	Contra Costa	14	A	At San Pablo Bet. Wildcat Cr. & San Pablo Cr.	1.0	8/24/46	J. R. Armstrong	Widening & Paving	87,964	24,169	112,133
0-4TTC1P	Contra Costa	14	A	San Pablo Ave. at 13th St.		8/ 5/48	H. C. Reid & Co.	Signals & Lighting	10,110	475	10,585

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
4TC31	Contra Costa..	14	B	Bet. Fourth St. & First St. in Rodeo..	0.3	10/14/46	Lee J. Immel.	Widen & Pave with A. C.	\$16,815	\$2,566	\$19,381
4TC38	Contra Costa..	14	B	At Second St. & Parker Ave.	0.3	11/19/46	Day Labor	Traffic Signals	5,090	404	5,494
4TC40-P	Contra Costa..	14	ECr, Reh	At Rodeo Bet. Sixth St. & Fourth St.	0.3	5/28/47	Morgan Construction Co.	Widen with A. C. & Construct Shldrs.	11,527	1,960	13,487
1-4TMC18-P	Contra Costa..	14	ECr	In El Cerrito & Richmond on San Pablo Ave. at 10 Intersections, Bet. Stockton Ave. & McBryde.	6/24/47 5/ 9/50	6/24/47 5/ 9/50	Severin Electric Co. L. H. Leonardi Electric Const. Co.	Traffic Signals	63,093	3,860	66,953
0-4TC61	Contra Costa..	14	Her, B	Pinole Overhead to East of Rodeo.	1.5	6/30/48	J. Henry Harris.	Signals	7,527	942	*8,469
1-4TC107	Contra Costa..	14	Her, B	Hercules to Oleum.	1.6	6/28/50	J. R. Armstrong	Grade, Pave & Structure.	112,337	12,321	124,658
0-4TTC7-P	Contra Costa..	14	Pin	San Pablo & Tennent Ave.	6/ 9/49	6/ 9/49	L. H. Leonardi Electric Const. Co.	Surface, Signals and Lighting.	163,193	20,800	*183,993
4W39	Contra Costa..	69	ECr	Potrero Ave.	11/ 1/46	11/ 1/46	Day Labor	Signals & Lighting	9,549	1,600	*11,149
0-4TMC15	Contra Costa..	69	Reh	Cutting Blvd. to 24th St.	1.0	3/ 1/49	Lee J. Immel.	Signals	8,250	600	*8,850
0-4GC17-P	Contra Costa..	69	Reh	47th St. to Garrard Blvd.	2/24/49	2/24/49	Tri-Cities Electrical Service, Inc.	Resurfacing	21,757	---	21,757
4T137	Contra Costa..	69	Reh	Contra Costa Co. Line to 25th St.	2.6	9/19/50	Day Labor	Signals & Lights	51,166	---	*51,166
51-4TC2	Contra Costa..	69	Reh	At Rust Drain.	4/ 1/50	4/ 1/50	Lee J. Immel.	Remove Curbs & Reconstruct Shoulders	7,500	---	*7,500
51-4TC27-P	C.C., Ala.	69	Reh, Ber	See Alameda County	---	---	---	R. C. Culvert.	32,645	6,000	*38,645
4W31	Contra Costa..	75	A	At Oakland St. & Moraga Rd.	8/14/46	8/14/46	Day Labor	Signals	15,332	798	16,130
4WC25	Contra Costa..	75	A, B	Bet. Broadway Tunnel & 3.5 Mi. E. of Walnut Creek.	5.3	6/25/46	N. M. Ball Sons	Repair with Imported Borrow & P. M. S.	25,177	3,942	29,119
1-4TC84	Contra Costa..	75	A, WIC	3.5 Mi. E. of Broadway Tunnel to Rte. 107.	5.6	5/ 9/49	J. R. Armstrong	Grade & Surface	308,811	38,800	*347,611
4T133	Contra Costa..	75	A	At Orinda Road.	6/ 8/50	6/ 8/50	Day Labor	Improve Intersection	6,940	---	*6,940
4WC26-F	Contra Costa..	75	B, C	Bet. Junct. Rte. 106 to 1 Mi. E. of Port Chicago Rd.	2.6	6/28/46	Harns Bros.	Grade & Pave	598,479	72,155	670,634
51-4TC12	Contra Costa..	75	B	Monument to Concord	2.1	8/21/50	J. R. Armstrong	Grade & P. M. S.	107,619	19,100	*126,719
4T130	Contra Costa..	75	B	Monument to Concord	2.1	3/10/50	Day Labor	Subsiding	5,271	---	5,271
4WC23	Contra Costa..	75	C, D	Bet. Pittsburg & 4 Mi. E. of Brentwood	10.1	4/22/46	Lee J. Immel.	Widen Shoulders & Bridge	82,463	9,422	91,885
1-4TC80	Contra Costa..	75	D	S.E. of Brentwood Jct. to Byron Rd.	1.4	4/ 1/49	C. M. Syar.	Surfacing	53,818	9,500	*63,318
0-4TC59	Contra Costa..	75	D	Old River Bridge	0.2	6/18/48	J. R. Armstrong	Base and Surface	77,361	9,864	87,225

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
44WC2	Contra Costa	75, 106	E, Cud, C	Bet. Concord Ave. & 0.4 Mi. W. of Ohmer Station	2.3	3/12/46	Guy F. Atkinson Co.	Grade & P.C.C. Pavement	\$225,687	\$36,716	\$262,403
0-4TTC2	Contra Costa	75, 106	WIC, C	Main St. at Mt. Diablo Blvd. & Ygnacio Ave. in Walnut Creek & on Rte. 106 at Pacheco Rd.	---	8/16/48	Tri-Cities Elec. Service	Signals and Lighting	26,719	3,196	29,915
0-4TC84	Contra Costa	106	A	Christie U.P. to Glen Frazer Station	1.7	6/29/48	Fredrickson & Watson Const. Co.	Grade and Surface	367,819	38,053	405,872
4W50	Contra Costa	106	C	Bet. Muir Sta. & Rte. 75	1.0	3/31/47	Day Labor	Resurfacing	18,353	529	18,882
1-4TC79	Contra Costa	106	C	Martinez Rd. to Willow Pass	3.6	4/ 1/49	Gallagher & Burk, Inc.	Plant Mixed Surface	155,201	22,000	*177,201
0-4TC57	Contra Costa	107	A	Alameda C. Line to 0.2 Mi. S. of San Ramon Cr.	4.2	5/25/48	Granite Const. Co.	Grade and Surface	180,282	16,155	196,437
4WC29-P	C.C. Ala.	107, 5	A, B	See Alameda County	---	---	---	---	---	---	---
51-4DC2	Contra Costa	FAS 610	---	State Rte. 75 to 1.6 Mi. SE. of Byron	3.2	8/18/50	J. R. Armstrong	Widen & P.M.S.	89,820	10,000	*99,820
14DC9	Contra Costa	FAS 797	---	Across Pacheco Slough	---	4/14/47	Duncanson-Harrelson Co.	Swing Bridge	217,938	13,349	231,287
4DC10	Contra Costa	FAS 801	---	See Alameda County	---	---	---	---	---	---	---
---	Contra Costa	---	---	Various Locations	---	---	---	Minor Contracts & D. L. Projects	52,124	---	52,124
1744	Del Norte	1	A	High Prairie Creek	---	9/10/47	Day Labor	Repair Bridge	5,898	162	6,060
1745	Del Norte	1	A	At Hunter Creek	---	11/17/47	Day Labor	Redeck Bridge	6,479	184	6,663
1717	Del Norte	1	A	At Panther Cr. Bridge Br. No. 1-25	---	9/28/45	Day Labor	Repair Bridge	6,212	111	6,323
1774	Del Norte	1	A, B	Richardson Creek to Klamath	6.28	12/ 1/49	Day Labor	Seal Coat	5,774	---	5,774
1-TC34	Del Norte	1	A, B	Richardson Creek to S. of Crescent City	6.3	4/ 1/49	Harms Bros. & C. M. Syar	Plant Mixed Surface	259,578	22,078	281,656
51-14TC12	Del Norte	1	A	At Hunter Creek, 2.4 Mi. N. of Klamath	---	8/21/50	Harms Bros. & C. M. Syar	Bridge & Approaches	86,194	7,200	*93,394
51-1TC4	Del Norte	1	A	Klamath River Bridge to Wilson Creek	6.7	4/ 1/50	Harms Bros. & C. M. Syar	P.M.S. & Seal Coat	264,791	27,000	*291,791
1TC13	Del Norte	1	B	Bet. 6.3 Mi. & 2.6 Mi. S. of Crescent City	3.7	5/ 3/46	W. C. Railing	Imp. Base Mat'l & Seal Coat	105,329	9,330	114,659
0-1TC30	D.N., Hum.	1	K, A	See Humboldt County	---	---	---	---	---	---	---

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-1TC27	Del Norte	46	A	At Turwar Creek, about 3 Mi. E. of Klamath.	0.7	5/ 5/48	Baldwin-Straub Corp. & Arthur B. Siri, Inc.	Bridge & Appr.	\$200,611	\$21,257	\$221,868
1-1TC35	Del Norte	81	A	Bear Creek.	0.3	4/ 7/49	C. E. Johnson	Grade & Surface	32,850	7,073	*39,923
14DC42	Del Norte	FAS 984		Hunter Creek.		8/13/48	Baldwin-Straub Corp. & Arthur B. Siri, Inc.	Const. Bridge & Appr.	62,880	6,114	68,994
14DC34	Del Norte	FAS 985		Across Smith River about 12 Mi. NE. of Crescent City.		3/11/48	Underground Const. Co.	Const. Bridge.	85,483	10,841	96,324
	Del Norte			Various Locations.				Minor Contracts & D.L. Projects.	18,254	40	18,294
3TC23-F	El Dorado	11	B	Bet. Shingle Springs & 1.25 Mi. W. of El Dorado.		2/19/46	Utah Construction Co.	Grading & Plant Mixed Surfacing	271,157	47,741	318,898
3TC90	El Dorado	11	E,F,H,T	Placerville to Mays Junction (Portions)	3.4	7/ 1/49	Day Labor	Parking Areas	5,840		5,840
3TC84	El Dorado	11	F	Pacific House Curve.	0.1	4/15/48	Day Labor	Widen Curve.	5,826		5,826
14WLC41	E.D., Pla	65	A, A	See Placer County							
3WC17	El Dorado	93	A	Bet. Rte. 65 near Placerville & Pino Grande Rd.	3.2	1/24/46	Day Labor	Widen, Improve Alignment & Oil Treat.	29,913	2,393	32,306
3TC86	El Dorado	93	A	Placerville to Georgetown.	1.1	6/14/48	Day Labor	Widen & Surface	44,983		44,983
1-3TC70	El Dorado	93	B	2.4 to 3.4 Mi. W. of Georgetown.	1.0	12/ 2/49	T. M. Montgomery	Grade & Seal Coat.	42,239	13,600	*55,839
3DC12	El Dorado	FAS 1095		Diamond Springs to Bell Ranch.	4.7	1/19/49	M. W. Brown	Grade & Seal Coat.	94,409	11,722	106,131
3DC15	El Dorado	FAS 1097		Lotus-Rescue Road to Rte. 65.	3.9	6/27/49	Tyson & Watters Co.	Grade & Surface.	57,014	10,260	*67,274
3DC2	El Dorado	FAS 1099		Georgetown to U. S. Ranger Station.	3.6	6/26/47	Miles & Bailey	Grade & Surface.	73,507	10,621	84,128
	El Dorado			Various Locations.				Minor Contracts & D.L. Projects.	19,220		19,220

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
6TC4-F	Fresno	4	A, Fow, B	Bet. 1/4 Mi. S. of Fowler & Calwa Overpass	6.5	10/ 8/46	Gunner Corporation & J. E. Haddock, Ltd.	Grade & Plant Mixed Surfacing.	\$708,223	\$71,349	\$867,572
6TC7	Fresno	4	A, Fow, B	Bet. 1/4 Mi. S. of Fowler & Calwa Overpass	6.4	8/27/47	F. Gunner Granauky	Barrier Curbs.	16,509	1,468	17,969
0-6TC15	Fresno	4	A	Bet. Selma and Fowler	3.4	7/28/48	Mathew & Jorgenson	Barrier Posts	9,742	1,458	11,200
6GTC1-PP	Fresno	4	B, Fre	Fresno City Limits to San Benito Ave.	1.2	6/30/47	Guy F. Atkinson Co.	Grade, Pave. & Structure	1,366,751	143,612	*1,510,363
6TC3	Fresno	4	B, Fre	Bet. Calwa Overpass & Fresno	1.1	1/17/48	Marshall S. Hamahan	Grading & P.C.C. Pavement	374,675	43,700	418,375
1-6TC18	Fresno	4	B, Fre	Church Ave. to Broadway	2.2	5/ 6/49	Samuel Surtees	Landscaping	20,881	4,054	24,935
51-6TC6-P	Fresno	4	B, Fre	At Church Street	1.1	1/23/51	Westates Electrical Const. Co.	Signals	14,972	1,200	*16,172
6WC6-P	Fresno	4, 125	B, A	Bet. Fowler & Calwa Overpass & Bet. 4.6 Mi. N. of Kings County Line & Mountain View Ave.	11.0	4/ 2/47	Gunner Corporation	Resurface with Plant Mix Surfacing	110,364	9,000	119,364
0-14TC4+P	Fresno, Mad	4	C, A	San Joaquin River No. of Herndon	1.0	6/10/48	Erickson, Phillips & Weisberg	Const. Bridge & Appr.	622,736	46,386	669,122
6TMC1-P	Fresno	4	Fow	Merced St. & Rte. 4	---	12/31/47	Severin Elec. Co.	Signals & Lighting	13,280	1,290	14,570
0-6TC13	Fresno	4	Fre, C	Belmont Circle to Clinton Ave.	---	5/19/48	Tri-Cities Elec. Serv.	Signals & Lighting	19,956	1,310	21,266
0-6TC12	Fresno	4	Fre, C	Belmont Circle to Clinton Ave.	1.8	4/15/48	Guy F. Atkinson Co.	Grade & Pave.	226,533	26,428	252,961
6TC11-P	Fre, Tul	4	Kugh, A E, D	See Tulare County	---	---	---	---	---	---	---
6TC8-P	Fre, Tul	4	Kugh, A E, D	0.5 Mi. S. of Kingsburg to Selma	5.2	10/20/47	N. M. Ball & Sons	Grade & Pave.	631,900	65,941	697,841
14WLC60	Fresno	41	M	Across Colony & Hahn Canals	---	9/ 5/47	E. G. Perham	Reinforced Concrete Bridges	49,805	4,029	53,834
14WLC43	Fresno	41	P	Across Kings Slough	---	1/ 8/47	Lord & Bishop	Reconstruct Bridge	21,573	1,098	22,671
14WLC27	Fresno	41	P	Bet. 2 Mi. E. of Mendota & 2 Mi. W. of Tranquility Rd.	---	12/21/45	Dan Caputo & Edward Keeble	12 R. C. Bridges & R. C. Box Culvert	194,189	14,433	208,622
6TC2	Fresno	41	S	Alta Main Canal	---	11/12/48	Day Labor	Redeck Bridge	6,994	---	6,994
51-6TC2	Fresno	41	S	Kingsburg Canal near Centerville	0.5	6/22/50	Ted F. Baun	R. C. Culvert & Approaches	42,415	7,050	*49,465
6W8	Fresno	76	B	At Big Dry Creek Br. No. 42-91	---	9/13/46	Day Labor	Widen Bridge with R.C. Slab	7,303	25	7,328
6WC5-F	Fresno	125	C	Bet. Shields Ave. & Herndon Ave.	4.0	11/14/46	Basich Bros. Const. Co. & Basich Bros.	Grade & Pave.	306,267	32,151	338,418

DEPARTMENT OF PUBLIC WORKS

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-14TC80	Fresno	138	A, Cng	At Warthan Creek in Coalinga	---	9/ 8/49	Thomas Const. Co.	Const. Bridge & Appr.	\$40,580	\$6,779	\$47,359
1-6DC25-P	Fresno	FAS 559	---	Bet. Church & Adams, on Madera Ave.	5.5	4/21/50	Gene Richards, Inc.	Grade & P.M.S.	114,927	17,000	*131,927
6DC5	Fresno	FAS 568	---	Highland Ave. Bet. Kings Co. Line & Elkhorn Ave.	3.3	6/ 7/47	Valley Paving & Const. Co.	Grading & Surfacing	142,214	8,723	150,937
6DC17	Fresno	FAS 568	---	Elkhorn Ave. to Rte. 4	6.4	1/26/49	Phoenix Const. Co. & Oilfields Trucking Co.	Grade & Surface	215,720	16,983	232,703
14DC12	Fre, Kin	FAS 623	---	See Kings County	---	---	---	---	---	---	---
6DC1	Fresno	FAS 809	---	On Fresno-Coalinga Rd. Bet. Mt. Whitney Ave. & State Highway Rte. 10	8.6	11/13/46	Louis Biasotti & Son	Grade & Surface	153,818	1,550	155,368
14DC16	Fre, Mad	FAS 811	---	Across San Joaquin River & Overflow at Firebaugh	---	5/19/47	Charles MacClosky Co.	2 Steel Bridges	251,944	13,320	265,264
6DC16	Fresno	FAS 814	---	On Clovis Ave. Bet. Ventura Ave. & Shaw Ave.	5.0	11/ 9/48	Ted F. Baun	Widen & Surface	144,069	12,053	156,123
6DC19	Fresno	FAS 817	---	Manning Ave., US 99 to Indianola	3.9	8/ 3/49	Oilfields Trucking Co. & Phoenix Const. Co., Inc.	Grade & Surface	141,000	11,770	152,770
6DC3	Fresno	FAS 823	---	On Reed Ave. Bet. Manning Ave. & Rte. 41	8.0	5/16/47	A. Teichert & Sons, Inc.	Grade & Surface	197,337	14,035	211,372
6DC9	Fre, Tul	FAS 1142	---	0.1 Mi. W. of Tulare County Line to 1 Mi. E. of Kings River	1.9	2/27/48	P. J. Moore & Son & Harnus Bros.	Grade & Bit. Surf. Treat.	59,156	4,312	63,468
---	Fresno	---	---	Various Locations	---	---	---	Minor Contracts & D.L. Projects	68,554	338	68,892
1-3TC62	Glenn	7	A, Wlos, B, C, Ori.	0.3 Mi. S. of Willows to Tehama Co. Line	19.7	5/20/49	W. C. Railing	Resurface	70,072	6,550	*76,622
1-3TC58	Gle, Col	7	C, A	See Colusa County	---	---	---	---	---	---	---

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-14TC74	Glenn	45	B	At Butte City		7/23/49	Lord & Bishop	Repair Bridge	\$13,983	\$1,608	\$15,591
14WLC61	Glenn	45	B, C	Sacramento River & Razor Slough		9/17/47	Judson-Pacifie- Murphy Corp.	Bridge Superstructure	233,897	18,900	*252,797
14WLC46	Glenn	45	B, C	Sacramento River & Razor Slough	0.6	2/26/47	Johnson-Western Co.	Bridge Substructure & Appr.	391,458	40,474	431,932
0-14TC36	Glenn	45	C	Sacramento Riv. Overflow & Campbell Slough		4/ 1/48	Chas. MacClusky Co.	Redeck 2 Bridges	75,874	10,463	86,337
51-14TC1	Gle, But	45	C, A	At Big Butte Creek		4/ 1/50	Transocean Engineering Co.	Bridge & Approaches	72,221	10,300	*82,521
1-3TC73	Glenn	45	C	At Butte City Ferry Crossing		5/17/50	Baker Trucking Co.	Restore Levee & Place Revetment	6,195	2,000	*8,195
3WL23	Glenn	47	A	Glenn-Colusa Canal, Br. No. 11-18		2/21/46	Day Labor	Repair Substructure	7,268	32	7,300
1-14TC60	Glenn	47	A	Glenn-Colusa Irrigation Canal		4/ 1/49	Shaul Const. Co.	Repacee Bridge	13,623	2,232	15,855
3T95	Glenn	47	Orl	Bef. 1st & 2d Sts. in Orland		2/ 9/50	Day Labor	Correct Drainage	5,445		5,445
3DC4	Glenn	FAS 531		Willows to Athena	8.5	7/23/47	H. Earl Parker, Inc.	Grade, Surface & Bridge	123,227	12,161	135,388
14DC43	Glenn	FAS 1117		At Salt Creek		9/29/48	George M. Carr & Bati Rocca	R. C. Bridge	17,727	2,436	20,163
1-14DC54-P	Glenn	FAS 1117		Across Grindstone Creek & Clark's Valley Creek		9/19/49	Weidner Const. Co.	Bridges	46,284	6,700	52,984
14DC33	Glenn	FAS 1119, 1120, 1121, 1122		Across Central & Provident Canals at Various Locations		12/19/47	Erickson, Phillips, & Weisberg	8 R. C. Bridges	174,055	14,105	188,160
1-14DC65	Glenn	FAS 1121		Willow Cr. to 4 Mi. W. of Rte. 45		2/11/50	Bos Const. Co.	Widen Bridge	9,071	1,455	*10,526
51-3DC1	Glenn	FAS 1121		4.7 Mi. E. of US 99W to State Rte. 45	5.1	7/15/50	Westbrook & Pope	Grade & Surface	48,338	7,500	*55,838
	Glenn			Various Locations				Minor Contracts & D.L. Projects	3,618		3,618

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1TC20	Humboldt	1	D, E	Bet. Jordan Cr. & South Scotia Bridge	1.2	6/12/47	Clements & Co.	Plant Mixed Surfacing & Seal Coat	\$30,449	\$2,564	\$33,013
1TC18	Humboldt	1	E	Bet. Greenlaw Bluffs & Scotia	3.2	4/ 2/47	Clements & Co.	Plant Mixed Surfacing & Seal Coat	90,188	7,997	98,185
0-1TC25	Humboldt	1	E, F, Fta.	Bet. N. Scotia Br. & 16th St. in Fortuna	2.8	4/28/48	Mercez-Fraser Co.	Grade & Pave.	548,892	68,126	617,018
1TC11	Humboldt	1	G	Bet. Lolcia & Field's Landing	4.0	4/16/46	Mercez-Fraser Co.	Reinforce Base & P.M.S.	93,955	9,064	103,019
1TC8	Humboldt	1	G, I, J	Bet. Lolcia & Patrick's Point	7.5	5/21/45	Mercez-Fraser Co.	Repair with Imp. Base & P.M. Bit. Matl.	181,755	18,869	200,624
14TC51	Humboldt	1	H	Eureka Slough		6/28/48	Tom Hull	Reconstruct Bridge Fenders	18,004	2,495	20,499
1TC12	Humboldt	1	J	Bet. Patrick's Point & Big Lagoon	3.4	4/30/46	Mercez-Fraser Co.	P.M.S. on Imp. Matl. Base	98,347	6,865	105,212
1TC170	Humboldt	1	J	At Lookout Point		8/19/49	Day Labor	Hydrauger Drains	24,198		*24,198
51-1TC7-F	Humboldt	1	J	0.5 Mi. S. of Stone Lagoon Summit to 1 Mi. S. of Orick	3.8	4/26/50	Mercez, Fraser Co. & Mercer, Fraser Gas Co., Inc.	Plant Mix Surface	214,668	28,000	*242,668
51-14TC9	Humboldt	1	J	Across Redwood Creek Overflow, 0.8 Mi. W. of Orick		6/14/50	Mercez, Fraser Co. & Mercer, Fraser Gas Co., Inc.	RC Bridge & Approaches Grading	28,154	3,800	*31,954
1-1TC31-F	Humboldt	1	J	Stone Lagoon Summit to S. of Orick	3.8	4/ 5/49	Pionbo Construction Co.	Grade & Surface	680,500	75,000	*755,500
0-1TC23	Humboldt	1	K	2.8 Mi. to 7.6 Mi. N. of Orick	4.8	4/ 1/48	Mercez-Fraser Co.		172,280	14,399	186,679
0-1TC30	Humboldt	1	K, A	2 Mi. S. to 5 Mi. N. of Hum.-D. N. County Line	2.5	8/17/48	Harns Bros. & C. M. Svar	Base & Surface	121,313	8,908	130,221
1TC33	Humboldt	1	K	7.6 Mi. to 10.4 Mi. N. of Orick	2.8	4/ 1/49	Mercez-Fraser Co.	Surface	104,203	9,327	113,530
51-1TC5	Humboldt	1	K	1 Mi. S. of Orick to 2 Mi. S. of Del Norte County Line	5.2	4/ 1/50	Mercez, Fraser Co. & Mercer, Fraser Gas Co., Inc.	Plant Mix Surface	222,291	24,500	*246,791
0-1TMC2	Humboldt	1	Eur	S. City Limits to Eureka Slough Bridge	2.6	7/16/48	Mercez-Fraser Co.	Resurfacing	95,602		95,602
14WLC28-F	Humboldt	20	A	At Mad River		1/ 5/46	Mercez-Fraser Co.	Bridge & Approaches	213,710	25,542	239,252
1WC12-F	Humboldt	20	B	Bet. 1.2 Mi. E. of Korbel Rd. & 2.7 Mi. E. of Redwood Summit	10.0	3/26/47	W. C. Railing	Base & Stockpile Screenings	97,418		97,418
1W25	Humboldt	20	B, C	Bet. Blue Lake & 1 Mi. E. of Redwood Creek	16.4	9/17/46	Day Labor	Grading & Seal Coat	193,639	6,912	200,551

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1WC11	Humboldt	20	B, C	Bet. Redwood Summit & 1 Mi. E. of Redwood Cr.	4.7	10/25/46	W. C. Railing	Imported Base Material	\$59,973	\$2,775	\$62,748
14WLC51	Humboldt	20	C	Across Redwood Creek		5/28/47	Osborne Engr. Co.	Repair Steel Truss	10,991	333	11,324
14WLC59	Humboldt	20	C	Across Redwood Creek		6/30/47	Tom Hull	Erect Steel Truss Span	15,546	1,823	17,369
41W10	Hum, Tri.	20	D, C, D	Bet. Willow Cr. & Crossing of Trinity River		1/23/42	Prison Labor	Const. Camp; Grade & Surface	1,115,384	86,105	1,201,469
1T65	Hum, Tri.	20	D, C, D	Willow Creek to Whites Bar	15.2	7/1/48	Prison Labor	Grade & Surface	255,135	18,203	273,338
1T69	Hum, Tri.	20	D, C, D	Willow Creek to Whites Bar	15.2	7/1/49	Prison Labor	Grade & Surface	305,667	22,733	328,400
1WL28	Humboldt	35	B	At Slide Bridge		8/14/46	Day Labor	Replace Bridge	6,015		6,015
1T75	Humboldt	35	C	Mi. 3 to Mi. 8, E. of Bridgeville	2.5	2/23/50	Day Labor	Base, Surface & Drainage	9,995		9,995
1T72	Humboldt	46	D, E	Weitchpec to Orleans	15.85	9/6/49	Day Labor	Grade & Surface	23,962		23,962
1-14TC61	Humboldt	46	E	Camp Creek		4/1/49	G. M. Carr & Bati Rocca	Reconst. Bridge	45,768	4,186	49,954
0-1TC29	Humboldt	46	F	Bet. Peach Cr. & 0.8 Mi. Northerly	0.9	8/23/48	Fred J. Maurer & Sons	Grade, Surface & Culvert	108,440	15,079	123,519
1T76	Humboldt	56	A	At Salt River bet. Fernbridge & Ferndale	0.2	5/17/50	Day Labor	Const. Bridge	7,000		*7,000
51-14TC14	Humboldt	56	A	At Salt River		8/22/50	Mercer, Fraser Co. & Mercer, Fraser Co., Inc.				
14WLC50-F	Humboldt	84, 46	B, C, D	At Klamath River	0.5	5/12/47	Clifford A. Dunn	Bridge & Approaches	109,618	10,500	*120,118
14WLC16-P	Humboldt	84, 46	B, C, D	Klamath River at Weitchpec	0.6	9/23/47	Guy F. Atkinson Co.	Bridge Substructure & Appr.	272,657	32,364	305,021
								Const. Bridge & Appr.	376,766	24,035	400,801
1DC1	Humboldt	FAS 501		Bet. Arcata & Ryans Slough Bridge	8.0	10/3/46	Mercer-Fraser Co.	Grade & Surface	193,830	18,087	211,917
1DC4	Humboldt	FAS 908		Bet. Jct. Rte. 20, E. of Blue Lake & Korbel	1.3	5/24/47	Mercer-Fraser Co.	Grade & Surface	54,766	4,618	59,384
1DC2	Humboldt	FAS 970		On Elk River Rd. bet. Jct. with Rte. 1, S. of Eureka & Elk River School	2.2	3/26/47	Mercer-Fraser Co.	Grade & Seal Coat	62,516	4,845	67,361
1DC7	Humboldt	FAS 976		Bull Creek Flat State Park to 7.3 Mi. Westerly	7.3	7/21/48	John Burman & Sons	Grade	169,800	22,594	192,394

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1DC8	Humboldt	FAS 977		Whitmore Grove State Park to 2.5 Mi. Westerly	2.5	7/20/48	M. Malfiano & Son, Inc., & Macal Improvement Co., Inc.	Grade	\$79,896	\$12,283	\$92,179
14WC14-F	Humboldt			In Whitmore Grove State Park across S. Fork of Eel River near Redway		9/16/47	Reed & Tuttle	Repair Bridge	42,034	5,647	47,681
	Humboldt			Various Locations				Minor Contracts & D.L. Projects	46,438		46,438
0-14VC71	Imperial	12	A, B, C	10 Mi. to 25 Mi. W. of El Centro		9/29/48	R. M. Price & O. B. Pierson	Redeck 15 Bridges	101,487	12,208	113,695
14VC46	Imperial	12	B	Across Apache Wash & Sandy Ditch		1/26/48	E. G. Perham	Redeck 2 Bridges	29,129	2,526	31,655
1-11VC42	Imperial	12	B, C	Plaster City to El Centro	6.0	4/21/49	Roland T. Reynolds	Road Mixed Surface	41,365	4,467	45,832
11VC15-F	Imperial	12, 26	C, ECh, F, Imp, G, Brw	El Centro to Brawley	13.1	5/16/47	Basich Bros. & Basich Bros. Const. Co.				
11V48	Imperial	12, 26	C, ECh, F, Imp, G, Brw	El Centro to Brawley	13.1	5/18/48	Day Labor	Signs & Stripe	5,192		5,192
11VC18	Imperial	26	A, B, C	Trifolium Canal to Sandy Beach Rd.	15.1	9/22/47	R. A. Erwin & Dee Tee Const. Co.	Resurface Bridge	434,736	55,924	490,660
14VC16-F	Imperial	26	B, C	At Lone Tree Wash & San Felipe Creek		10/31/46	Bent Const. Co.	Bridge & Approaches	254,058	17,765	271,823
11XC12	Imperial	26, 27	J, ECh	Bet. Calexico & El Centro & in El Centro	12.7	8/7/46	Tanner Const. Co.	Grade Portions, Improve Shldr., & Plant Mixed Surfacing	237,389	26,799	264,188
1-11VVC5-P	Imperial	26, 187	Brw	Main St. at 1st & 6th Sts.		3/17/50	Westates Elec. Const. Co.	Signals & Lighting	11,463	1,500	*12,963
0-11VVC15-P	Imperial	26, 187	Clk, Brw	In Calexico & Brawley	3.2	8/13/48	Basich Bros. & Basich Bros. Const. Co.	Resurfacing	98,204		98,204
11VC20-P	Imperial	26	ECh	Intersections of 4th St. with Main St. & 8th St. with Adams Ave. in El Centro.		1/20/48	C. E. Seymour	Traffic Signal Systems	19,383	371	19,754
11VC14-F	Imperial	26	ECh	On 4th St. & Adams Ave., Bet. Main St. & Imperial Ave.	1.2	1/28/47	R. E. Hazard Const. Co.	Grade & Pave	347,975	37,694	385,669
11VC34	Imperial	26	ECh, Imp	In El Centro & Imperial		6/29/48	California Elec. Works	Signals & Lighting	20,632	328	20,960
1-11VC58	Imperial	27	A, B	Midway Wells to Colorado River	9.7	4/21/50	E. S. & N. S. Johnson	Road Mix Surface	52,923	7,600	*60,523

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
14VC35	Imperial	27	B	Bet. Grays Wells & Winterhaven	-----	9/ 8/47	C. B. Tuttle Co.	Repair 12 Bridges	\$38,426	\$3,260	\$41,686
14VC18	Imperial	27	B	Near Winterhaven	-----	8/30/46	Tanner Const. Co.	Repair 8 Bridges	54,453	4,691	59,144
0-14VC60	Imperial	27	D, A	East High Line Canal	0.5	6/29/48	Basich Bros. & Basich Bros. Const. Co.	Bridge & Approaches	112,360	14,582	126,942
11V56	Imperial	187	A	6.1 to 6.4 Mi. N. of Bond's Corner	0.3	9/19/49	Day Labor	Resurface & Bank Protection	12,373	157	12,530
1-11VC49	Imperial	187	B, C	Sandia & Alamorio Turns	1.3	11/14/49	E. C. Young & Co.	Grade & Surface	61,821	13,800	*75,621
1-11VC44	Imperial	187, 201	BC, AB	Holtville to Brawley & Heber to Brawley	3.4	5/ 6/49	Warren Southwest, Inc.	Surface	39,465	5,213	44,678
1-11VC59	Imperial	187	B, C, D	Holtville to Calipatria	7.4	4/21/50	Arthur A. Johnson	Road Mix Surface	79,626	9,750	*89,376
51-14VC6	Imperial	187	D	New River, 5 Mi. N. of Brawley	-----	9/12/50	Norman I. Fadel	Bridge & Approaches	53,149	9,700	*62,849
1-11VC50	Imperial	187	E, F	Main St. in Niland to 2 Mi. NW. of Niland	2.2	11/15/49	Roland T. Reynolds & Thomas Const. Co.	Grade, RMS, & RC Slab Bridges	225,100	35,000	*260,100
1-11VC54	Imperial	187	F, G	2 Mi. NW. of Niland to Riverside County Line	21.8	3/20/50	Hensler Const. Corp.	Grade, PMS & Seal Coat	409,669	50,000	*459,669
1-11VC52	Imperial	187	F, G, A *	2 Mi. NW. of Niland to Durmid	6.0	12/ 9/49	E. L. Yeager Co.	Grade, Surface, Bridges, & Culverts	440,888	54,000	*494,888
0-14VC72	Imperial	198	A	Condit & Bondit Ditches	-----	9/29/48	R. M. Price & O. B. Peterson	2 R. C. Bridges	25,156	4,624	29,780
1-14VC98	Imperial	198	A	Across San Felipe Creek Overflow	-----	4/ 1/50	Anderson Co.	RC Bridge & Approaches	98,040	15,500	*113,540
0-11VC26	Imperial	201, 187	ABC, C	Rte. 26 to Calipatria & Curlew to Alamorio	6.6	4/ 9/48	MacArthur & Son	Resurfacing	80,310	4,223	84,533
11XC18	Imperial	201, 187	A, B, C A, B, C	Bet. Jct. Rte. 26, 1.5 Mi. E. of Heber & 1.9 Mi. S. of Calipatria & Bet. 3.6 Mi. N. of Bond's Corner & Alamorio	12.0	6/30/47	MacArthur & Son	Repair with Road Mixed Surface	80,578	2,764	83,342
1-11VC53	Imperial	201	B	Rockwood Canal, 2.5 Mi. S. of Brawley	0.4	1/12/50	Arthur A. Johnson	Const. Bridge	25,392	7,500	*32,892
14VC38	Imperial	202	A, B	At New River & Greeson Wash	0.16	10/20/47	G. W. Peterson	Bridges & Approaches	54,366	5,622	59,988
51-14VC5	Imperial	202	B	Across New River	-----	8/31/50	Anderson Co.	RC Bridge & Approaches	42,293	8,500	*50,793

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
11X35	Imperial	202	C	At Briar & Central Main Canals	---	12/ 9/46	Day Labor	Lengthen Central Canal Bridge & Place Embankment Protection at Both Structures Grade & RMS	\$8,750 22,777	\$12 5,000	\$8,762 *27,777
1-11VC55	Imperial	202	C	Ash Canal to S. Alamo Canal	0.6	3/18/50	Hubbs Equipment Co.				
14DC61	Imperial	FAS 649		West Side Main & Sumac Canals		12/13/49	T. A. Kvale	Const. Bridge & Siphon	32,835	4,500	*37,335
11DC3	Imperial	FAS 649		N. of New River to W. of Calipatria	20.1	4/29/49	Hensler Const. Corp.	Surfacing	426,390	55,500	*519,225
	Imperial			Various Locations				Minor Contracts & D.L. Projects.	33,288	42	33,330
51-9VC5	Inyo	23	B	At Aberdeen & Black Rock Curves	0.6	5/17/50	E. C. Young & Co.	Grade, RMS and Seal Coat	13,903	3,500	*17,403
1-9VC22	Inyo	23	D, Bis, E	At Bishop	0.4	6/14/49	Bishop Engineer & Const. Co.	Resurface	44,365	5,079	49,444
9VC6-F	Iny, Ker	23	G, E	See Kern County		4/19/50	Halloran & Gill	Grade, RMS and Seal Coat	21,632	4,400	*26,032
51-9VC1	Inyo	23	G	Little Lake to 3 Mi. N.	2.4	1/21/48	Bishop Engr. & Const. Co.	Grade & Bit. Surf. Treatment	12,669	2,517	15,186
9VC11	Inyo	23	H, I	From 2.0 Mi. S. to 10.7 Mi. S. of Olancho	0.4	12/18/47	Basich Bros. Const. Co., Basich Bros. & O. B. Pierson				
9VC10-F	Inyo	23	L, M	Alabama Gates to Manzanar	4.3	5/ 6/49	Onifields Trucking Co. & Phoenix Const. Co., Inc.	Grade, Surface & Structures	223,217	27,224	250,441
1-9VC19	Inyo	23	L,M,A,D	Lone Pine to Bishop	18.1	4/26/49	Jas. R. Mathews Excavating Co.	Surface Shoulders	55,459	6,788	62,247
1-14VC85	Inyo	76	A	Owens River & Lower McNally Canal		9/18/47	Bishop Engr. & Const. Co.	Structures & Approaches	45,148	5,086	50,234
9RX01	Inyo	76	A	Bet. Laws & Mono County Line				Construct Fence	6,146	821	6,967
9XC4	Inyo	76, 127	A, Bis, C	Bet. Rte. 23 & Mono County Line, in Bishop, Bet. W. City Limits & Rte. 23 & Bet. Rte. 23 & Keeler	3.2	5/16/47	Browne & Krull	Road Mix Surfacing	17,539	2,215	19,754
1-9VC27	Inyo	127	C, D	SP.R.R. Xing W. of Keeler to Soda Plant	5.4	11/ 9/49	Rice Brothers, Inc.	Grade & Surf.	93,441	15,650	*109,091
1-9VC24	Inyo	127	D	Soda Plant to 8 Mi. S.	7.1	7/12/49	R. A. Erwin	Grade & Surf.	81,179	16,300	*97,479
9VC9	Inyo	127	N	At Shoshone	0.7	11/13/47	A. A. Edmonson	Grade & Road Mix Surfacing	26,455	5,198	31,653
9VC26	Inyo	212	D, E	Shoshone to State Line	19.6	11/ 9/49	Day Labor	Improve Roadway	24,832	744	*25,576

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
9DC9	Inyo	FAS 1065		SW. End Wildrose Canyon to Death Valley	5.7	7/25/49	Dicco, Inc. & Dix-Syl Const. Co., Inc.	Grade & Surface	\$36,764	\$7,682	\$44,446
9DC5	Inyo	FAS 1065		N. of Trona to Water Canyon	4.9	1/15/48	Swedlow Engr. Co., Inc.	Grade & Bit. Surf. Treat.	130,491	21,975	152,466
9DC8	Inyo	FAS 1065		N. of Trona to Wildrose Canyon	15.0	12/14/48	Arthur A. Johnson	Grade & Pen. Treat.	88,212	14,337	102,549
9DC6	Inyo	FAS 1068		Independence to Kearsarge	4.5	1/26/48	Brown & Krull	Grade, Pen. Tr., & Widen Bridge	47,121	6,853	53,974
9DC1	Inyo	FAS 1070		Near Bishop, on Warm Springs Rd. & Poleta Rd.	4.4	5/16/47	Basich Bros. Const. Co. & Basich Bros.	Grade, Surface, & 2 Bridges	116,915	8,861	125,776
9DC4	Inyo	FAS 1071, 1069		On Pine Cr. Rd. & Glacier Lodge Rd.	4.2	9/22/47	Westbrook & Pope	Grade & Surface	79,874	11,292	91,166
	Inyo			Various Locations				Minor Contracts & D.L. Projects	22,443		22,443
6VC6	Kern	4	A	Bet. 1.6 Mi. & 1.25 Mi. S. of Grapevine Station		5/16/46	Griffith Company	Traffic Deflector	21,130	2,350	23,480
1-6VC33	Kern	4	A	Fort Tejon to N. of Grapevine	5.0	4/19/49	Hensler Const. Corp.	Traffic Deflector	196,285	11,258	207,543
1-6VC38	Kern	4	A	Oak Glen to Grapevine Station	1.8	9/2/49	Griffith Co.	Resurface	34,141	3,469	37,610
0-6VC17	Kern	4, 140	B, C, B	Grapevine to Switzers & Mi. 6.74 to Rte. 4	29.8	4/10/48	Dicco, Inc. & Dix-Syl Const. Co., Inc.	Grade & Surface	377,334	21,672	399,006
0-6VC36	Kern	4	B, C	Grapevine Sta. to Switzers	19.1	6/22/49	Griffith Co.	P.M.S. Borders	36,225	2,732	*38,957
6V41	Kern	4, 140	BC, B	Grapevine to Switzers & Mi. 6.74 to Rte. 4	29.8	7/12/48	Day Labor	Stripe & Shoulders	11,436		11,436
6VC5	Kern	4	C, Bkd	Bet. Brundage Lane & 24th St.	1.9	4/22/46	Griffith Company	Grade & P.C.C. & A.C. Paving	435,612	48,101	483,713
6VC11-FP	Kern	4	C, Bkd	Bet. Brundage Lane & 21st St.		10/23/46	Oilfield Electric Co.	Traffic Signals	42,581	4,971	47,552
0-6VC24	Kern	4	C	S. Chester Ave. & Strader Grade Xing		6/28/48	L. H. Leonardi Electric Const. Co.	Signals & Lights	10,997	1,168	12,165
0-6VC20	Kern	4	C	Bet. Hoskins Rd. & Brundage Lane	5.1	5/19/48	Griffith Co.	Grade & Pave.	750,759	67,383	*818,142
1-6VC30	Kern	4	D, E	Snow Rd. to Cawelo	7.6	4/1/49	Peter Kiewit Sons' Co.	Resurface	107,858	9,919	117,777
6VC7	Kern	4	D, E	Bet. Standard Oil Tank Farm & Cawelo		5/7/46	Geo. Von Kleinsmid	Barrier Posts	7,028	2,800	9,828

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-6VC28	Kern	4	D, E	Snow Rd. to Cawelo	4.2	8/ 5/48	C. J. B. Const. Co.	Barrier Posts	\$11,770	\$1,369	\$13,139
6VC10-F	Kern	4	E	Bet. Cawelo & Famoso Underpass	6.7	10/17/46	Griffith Company	Grade & Pave	517,023	53,332	570,355
6VC18	Kern	4	E	Cawelo to Famoso U.P.	6.4	4/19/48	E. G. Perham	Barrier Posts	20,552	2,827	23,379
6VC8	Kern	4	F, Dln	Bet. Famoso & Cecil Ave. in Delano	10.4	5/27/46	Griffith Company	Repair with P.M.S.	93,215	8,478	101,693
6VC25	Kern	4	G, D	Minkler U.P. to Snow Rd.	1.4	6/28/48	Dico, Inc. & Dix - Syd Const. Co., Inc.	Surfacing	14,324	1,178	15,502
6VC13-PP	Kern	4, 141	Bkd, G, D, A	Bakersfield to Snow Rd. & Calloway Canal to Rte. 4	3.6	6/ 9/47	Griffith Co.	Grade, Pave & Structure	1,279,492	125,707	1,405,199
1-6VC40	Kern	4	Bkd	Bet. 21st St. & "H" St.		10/ 4/49	Ets-Hokin & Galvan	Signals & Lighting	42,090	3,300	*45,390
1-6VC37	Kern	4	Bkd	Bet. 23rd St. & "H" St. N. of Garces Circle	1.0	8/10/49	Griffith Co.	Grade & Pave	331,839	36,000	*367,839
51-6VC12-P	Kern	4	Dln	At 11th Ave. in Delano		4/13/51	Fischbach & Moore, Inc.	Signals & Lighting	13,451	1,700	*15,151
52-6VC1	Kern	4	Dln	Jct. of Rte. 136 to Tulare Co. Line	1.0	4/ 2/51	Griffith Co.	Plant Mix Surface	22,584	3,500	*26,084
0-9VC16	Kern	23	A	In Mojave	23.2	2/21/49	G & H Paving Co.	Railing	6,421	1,268	7,689
51-9VC6	Kern	23	A, C, D	Los Angeles Co. Line to Freeman Jct.		5/17/50	G. W. Ellis Const. Co.	P.M.S. & Seal Coat	143,714	15,000	*158,714
1-9VC21	Kern	23	B	Mojave to 0.8 Mi. N.	0.8	6/ 2/49	Davis & Swartz	Grade & Surface	37,809	8,332	46,141
0-9VC17	Kern	23	C	Ittners to Ricardo	0.4	3/ 2/49	Peterson Const. Co.	Embankment, Protector	20,219	3,108	23,327
0-9VC13	Kern	23	C	Ittners to Ricardo	2.4	5/12/48	Westbrook & Pope	Grade & Surface	38,198	5,867	44,065
9VC1-F	Kern	23	D	At Freeman Gulch		2/19/46	E. W. Elliott Const. Co.	Bridge & Approaches	77,962	14,815	92,777
9VC6-F	Ker, Iny	23	E, G	Bet. Indian Wells & Little Lake	2.7	4/21/47	Basich Bros. Const. Co. & Basich Bros.	Grade, Surface & Bridge	203,937	19,477	223,414
6X14	Kern	33	B	Bet. Blackwells Corner & Harris Sta.		3/21/46	Day Labor	Restore Borders	16,996	25	17,021
6XC7	Kern	33	C	Bet. Lost Hills & Wasco	4.7	4/ 5/46	Oilfields Trucking Co. & Phoenix Const. Co.	Widen Shldr.	25,813	4,198	30,011
6XC8	Kern	33	C	Bet. 8.7 Mi. & 2.0 Mi. W. of Wasco	6.7	6/24/46	Griffith Company	Repair with P.M.S. & Seal Coat	54,324	7,000	61,324
6XC13-P	Ker, Tul	33, 4	D, A	See Tulare County							
6X21	Kern	57	A	Bet. South Boundary & Maricopa	2.4	3/20/47	Day Labor	Resurfacing	17,233	250	17,483

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
51-6VC1	Kern	57	B	6 Mi. W. to 2 Mi. W. of San Emidio Road	4.0	4/ 1/50	Rand Const. Co., Inc.	Surface	\$32,809	\$8,800	*\$41,609
6X25	Kern	57	C	At Tecuya Creek		5/ 1/47	Day Labor	Arch Culvert	9,798	152	9,950
6XC15	Kern	57	E	Bet. 0.4 Mi. W. of Cottonwood Cr. & Cottonwood Cr.	0.4	6/17/47	James E. Anderson	Searify & Subsoiling	3,685	700	4,385
6V40	Kern	57	I	Bodfish Creek		7/ 1/48	Day Labor	Culvert	9,985	138	10,123
6VC16-Y	Kern	57	I	2 Mi. S. of Isabella to Isabella	2.0	3/11/48	Munn & Perkins & Mathew & Jorgenson	Grade, B.S.T. & Bridge	147,089	20,068	167,157
0-14VC63	Kern	57	K	Canebrake Creek		8/18/48	Bishop Engr. & Const. Co.	Bridge & Approaches	15,633	3,771	19,404
1-9VC26	Kern	57	K	Bet. Chimney Creek & Walker Pass		10/ 4/49	Miles & Bailey	Grade & Surface	46,346	9,200	*55,586
1-6VVC3-P	Kern	57, 58	Bkd	Intersection Baker & Summer Sts.		12/ 2/49	Westates Electrical Const. Co.	Signals	8,916	1,016	9,932
9VC5-F	Kern	58	A	Bet. 12 Mi. E. of Mojave & Muroc Jct.	5.0	1/28/47	Basich Bros. Const. Co.	Grade & Plant Mixed Surfacing	148,886	14,414	163,300
0-9VC15	Kern	58	A, B	Mojave to San Bernardino Co. Line	11.5	8/23/48	Basich Bros. Const. Co. & Olifields Trucking Co. & Phoenix Const. Co.	Grade & Surface	149,695	17,245	166,940
0-9VC23	Kern	58	A, B	Mojave to Sbd. Co. Line	11.5	6/25/49	G. & H. Paving Co.	Seal Coat	14,766	1,059	15,825
9VC8	Kern	58	B	Bet. Muroc Jct. & 6.5 Mi. E.	6.5	5/ 7/47	Basich Bros. Const. Co. & Basich Bros.	Repair with Road Mixed Surf.	31,114	1,907	33,021
14VC39	Kern	58	D	Across Walker Basin Cr. & Caliente Cr.		11/20/47	N. M. Saliba Co.	Redeck 3 Bridges	26,720	2,408	29,128
6XC11-F	Kern	58	E, F, Thru	Bet. Keene & Tehachapi		12/31/46	Guy F. Atkinson Co.	Grade, Surface & Bridges	1,142,467	89,173	1,231,640
14XC23-F	Kern	58	E, F	Between Keene & Tehachapi	10.2	8/15/47	Guy F. Atkinson Co.	2 Bridge Superstructures	396,645	17,248	413,893
0-6VC29	Kern	58	F	¼ Mi. E. of Tehachapi	0.2	9/ 8/48	Olifields Trucking Co. & Phoenix Const. Co.	Culvert & Grade	17,353	2,472	19,825
6VC19	Kern	58	G	½ Mi. E. of Monolith	0.2	4/19/48	Olifields Trucking Co. & Phoenix Const. Co.	Grade & Surface	18,698	3,000	21,698
14XC8	Kern	58	G	Across Cache Cr. & Los Angeles Aqueduct		12/11/45	E. W. Elliott Const. Co.	Plate Girder & R. C. Bridges	90,355	11,862	102,217
14VC40	Kern	58	K	Across Main Drainage Canal		12/11/47	E. G. Perham	Reinforce Concrete Bridge	22,452	4,186	26,638
1-14VC81	Kern	58	K	At Jerry Slough		4/ 1/49	W. E. Thomas Const. Co.	Const. Bridge & 2 Culverts	13,279	5,025	18,304

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
6XC16	Kern	58	L	On Oak St. at Bakersfield	---	6/30/47	Rexroth & Rexroth	Remove Girder Bridge	\$12,220	\$462	\$12,682
6XC9-F	Kern	129	A	Bet. Rte. 4 & 5 Mi. N.	5.1	10/14/46	Geo. E. France	Grade & Surface	159,498	26,848	186,446
14VC57	Kern	129	A	Poso Creek	---	6/15/48	F. Fredenburg	R. C. Bridge	47,378	3,437	50,815
0-6VC23	Ker, Tul.	129	AB, A	Poso Creek to Ducor	23.9	6/23/48	Clyde W. Wood, Inc.	Seal Coat	22,017	2,527	24,544
6XC10-F	Ker, Tul.	129	AB, A	Bet. Poso Cr. & Ducor	18.3	12/23/46	Rand Const. Co.	Grade & Surface	295,202	40,309	335,511
0-14VC62	Kern	139,	A, A	Kern River & Buena Vista Creek	---	8/ 3/48	Thomas Const. Co.	Const. Culvert & Redeck Bridge	26,491	4,397	30,888
0-6VC26	Kern	140	C	Dertoy St. to W. of Meyer St.	0.6	8/ 3/48	Griffith Co.	Bit. Surf. Treat.	35,494	3,868	39,362
1-6VC34	Kern	140	D	At Hill Creek	---	5/ 6/49	Anderson Co.	Cattle pass	5,400	1,190	6,590
51-6VC11	Kern	141	A	On Brundage Lane	---	12/15/50	E. G. Perlman	Extend Culverts	26,274	3,400	*29,674
1-6VMC2-P	Kern	141	Bkd	At Brundage Lane & S. Chester Ave.	---	9/16/49	Westates Electrical Const. Co.	Signals & Lighting	10,377	---	*10,377
1-6VC32	Kern	142	A	Cow Creek	0.1	4/ 1/49	Thomas Const. Co.	Culvert & Approaches	8,296	1,717	10,013
1-6VVC2	Kern	142	A	Intersection Rte. 142 & Roberts Lane (Oildale)	---	7/27/49	Clinton Electric Corp.	Signals & Lighting	11,000	1,590	12,590
0-14VC61	Kern	142	B	Granite Canyon	---	7/17/48	Anderson Co.	Const. Bridge & Approaches	43,313	7,242	50,555
51-6VC4	Kern	142	C	At Howling Gulch	---	10/ 5/50	Rand Const. Co., Inc.	Replace Bridge with Culvert	6,172	1,200	*7,372
1-6VVC5-P	Kern	142	Bkd, A	At 34th St.	---	5/22/50	L. H. Leonardi Electric Const. Co.	Signals & Lighting	12,717	1,573	14,290
1-9VC25	Kern	145	A	Randishburg Road to Searles Sta. Road	2.3	8/ 2/49	Clyde C. Wood, Inc.	Grade & Surface	33,348	5,696	39,044
51-9VC4	Kern	145	A, B	Searles Road to Rademacher	3.3	5/11/50	E. C. Young & Co.	Grade, RMS and Seal Coat	33,237	7,450	*40,687
1-9VC18	Kern	212	A	Bet. Naval Ord. Sta. & Sbd. Co. Line	4.0	4/23/49	Rand Const. Co., Inc.	Surface	22,788	4,126	26,914
51-6DC6-P	Kern	FAS 574	---	David Road to Wheeler Ridge	6.9	1/11/51	Oilfields Trucking Co. & Phoenix Const. Co., Inc.	Plant Mix Surface	82,466	3,525	*85,991
14DC18	Kern	FAS 575	---	Across Kern River	---	5/28/47	O. B. Pierson	R. C. Slab Bridge	82,089	1,087	83,176

DIVISION OF HIGHWAYS

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Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
6DC22	Kern	FAS 575		Union Ave. to Fairfax Road	4.0	2/23/50	Oilfields Trucking Co. & Phoenix Const. Co., Inc.	Grade & PMS	\$134,907	\$20,000	*\$154,907
51-14DC2	Kern	FAS 881		Across Beardsley Canal & at Beardsley School		11/ 8/50	Griffith Co.	Bridge & Pedestrian Undercrossing	40,592	3,000	*43,592
6DC2	Kern	FAS 884		On Comanche Dr., Bet. State Hwy. Rte. 58 & 3.3 Mi. S'ly	3.3	5/ 1/47	Rexroth & Rexroth	Grade & Surface	34,962	1,008	35,970
6DC15	Kern	FAS 887		Rte. 142 to Rte. 4	2.8	10/28/48	Griffith Co.	Grade & Surface	157,447	18,213	175,660
6DC13	Kern	FAS 889		Elmo Hwy. to Tulare County Line	7.2	9/24/48	Louis Biasotti & Son	Grade & Bit. Surf. Treat.	150,509	8,791	159,300
6DC4	Kern	FAS 889		Bet. Wasco & Elmo Hwy.	6.1	6/ 4/47	Rand Const. Co.	Grade & Surface	150,195	7,112	163,307
6DC10	Kern	FAS 895		Rte. 33 to Lerdo Hwy.	8.4	5/27/48	Geo. E. France, Inc.	Grade & Pen. Treat.	224,230	7,774	231,504
1-6TTC1	Kern	10, 135		Various Locations				Minor Contracts & D.L. Projects	101,957	1,448	103,405
1-6TC17	Kings	125	Han, A, A	Jct. Rte. 10 & 135 at E.C.L. of Hanford		2/10/50	Westates Ele. Const. Co.	Signals & Lights	8,714	1,350	*10,064
51-6TC1	Kings	125	C	Kettleman City to 5th Standard Parallel	5.3	5/ 6/49	Gene Richards	Surface	92,337	31,269	123,636
0-6TC14	Kings	125	C	0.2 to 5.2 Mi. N. of Kettleman City	5.0	4/ 1/50	Westbrook & Pope	Grade, BST & Seal Coat	104,876	17,462	122,328
6WC4	Kings	125	D	Straford to 1 Mi. N.	1.9	7/27/48	Oilfields Trucking Co. & Phoenix Const. Co., Inc.	Grade, Surface & Const. Bridge	193,477	41,900	235,377
6DC13	Kings	FAS 508	D	Bet. Fifth Std. Parallel & 1.5 Mi. N.	1.5	1/21/46	W. C. Railing	Grading & Road Mix Surfacing	65,617	10,509	76,126
51-6DC4-P	Kings	FAS 508, 623, 820		Kings River to Fresno County Line	0.7	8/19/48	Anderson Co.	Surfacing	40,526	809	41,335
				On 10th Ave., 7th St. to Grangeville Bldg. & on Laton Hwy., Last Chance Ditch to Kings Riv.	2.9	12/ 9/50	Ted F. Baum	Grade & PMS	89,698	2,500	*92,198

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
14DC12	Kin. Fre.	FAS 623		Across Kings River near Hardwick.		5/ 1/47	Klay Bennett Const. Co.	R. C. Bridge	\$129,033	\$1,980	\$131,013
14DC73-P	Kings	FAS 940		Across Kings River		6/28/50	W. E. Thomas Const. Co.	RC Slab Bridge	33,147	1,000	*34,147
6DC7	Kings	FAS 943		Bet. Corcoran & 5.3 Mi. S.	5.3	11/13/47	C. M. Syar	Grade, C.R.B. & P.M.S.	137,055	5,457	142,512
	Kings			Various Locations				Minor Contracts & D.L. Projects	23,893	485	24,378
0-14TC43	Lake	15	B	2.6 Mi. E. of Upper Lake		5/27/48	C. C. Gildersleeve	Cattlepass.	5,880	734	6,614
1WLC6	Lak. Nap.	49	A, A	See Napa County							
1-1TC32	Lake	49	B	1.3 to 5.9 Mi. N. of Putah Creek	1.4	4/ 1/49	Chittenden & Chittenden	Grade, Surface & Seal Coat	131,965	20,158	152,123
0-1TC21	Lake	49	B	At Coyote Cr. about 6 Mi. N. of Middletown.	0.5	3/ 2/48	Harold Smith	Const. Bridge & Approaches	63,385	10,763	74,148
14TC41	Lake	49	C	Across Burnus Valley Creek		4/21/48	C. C. Gildersleeve	Repair Bridge	4,893	787	5,680
1W28	Lake	49	C	At Burnus Valley & Molesworth Creeks		9/19/46	Day Labor	Replace Bridges	7,871	38	7,909
1-1TC38	Lake	89	B	5.4 to 6.0 Mi. N. of Middletown	0.6	7/ 7/49	Arthur B. Siri, Inc.	Grade & P.M.S.	54,120	10,600	*64,720
14WLC49	Lake	89	B, C	At Kelsey Cr. at Cobb		4/24/47	Arthur B. Siri	Bridge & Approaches	33,838	4,454	38,292
1764	Lake	89	B, C, D	Middletown to Kelsey		7/ 1/48	Day Labor	Grade & Surface	52,610	8,750	*61,360
14WLC36-F	Lake	89	D	Across Kelsey Cr. at Kelseyville		7/19/46	A. Soda & Son	Bridge & Approaches	210,083	16,986	227,069
1WC10	Lake	89	E	Bet. 1.2 Mi. N. of Rodman Narrows & Rte. 15							
14WLC30-F	Lake	89	E	Across Robinson Cr. & Scott Cr.	2.0	3/26/46	Louis Biasotti & Son	Grading & Plant Mixed Surfacing	155,489	23,540	179,029
1W30	Lake	89	E	N. of Redman Narrows Rd. to Rte. 15	2.0	5/ 7/46	Kiss Crane Co.	Two Bridges	144,290	14,687	158,977
1DC5	Lake	FAS 1039		Rte. 89 to 1 Mi. W. of Lower Lake	5.1	2/20/47	Day Labor	Seal Coat	4,654		4,654
1DC6	Lake	FAS 1039		1.0 Mi. to 2.1 Mi. E. of Rte. 89	1.1	8/13/47	Morrison-Knudson Co.	Grade, Imported Borrow & Seal Coat	115,477	15,607	131,084
	Lake			Various Locations		11/29/47	George Stout	Imported Borrow & Seal Coat	29,978	3,377	33,355
2TC8	Las. Sha.	28	A, B, E	See Shasta County				Minor Contracts & D.L. Projects	20,711	600	21,311

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
2T46	Lassen	28	B	Bieber to Modoc County Line	3.2	6/3/47	Day Labor	Surfacing	\$12,391	\$76	\$12,467
2TC20	Las. Plu	29	A, A	See Plumas County							
0-2TC24	Lassen	29	B	Bet. Fredonyer Pass & Susan River	6.3	4/ 9/48	Sheldon Oil Co.	Base & P.M.S.	86,358	7,646	94,004
2WLC1	Lassen	29	C	At Baxter Creek, N. of Jansville	1.1	8/21/47	Fredrickson & Watson Const. Co.	Grade, Surface, & Structure	101,747	9,629	111,376
2WC6	Lassen	29	D	Bet. 2 Mi. N. of Milford & Bird Flat	12.4	4/ 9/47	Clements & Co.	Plant Mixed Surfacing	130,162	12,387	142,549
2WC4	Lassen	29	D	Bet. 1.5 Mi. W. of Bird Flat & Doyle	7.5	1/17/46	The Utah Construction Co.	Grading & Plant Mixed Surfacing	237,117	26,413	263,530
2WC5	Lassen	73	B	Bet. Viewland & Secret Valley	13.8	4/16/46	E. B. Bishop	Gravel Base & Plant Mixed Surf.	122,258	9,615	131,873
2T74	Lassen	73	D	Litchfield to Ravendale	3.0	12/14/48	Day Labor	Grade & Surface	53,929		53,929
2W37	Lassen	73	E, F, G	Bet. Horse Lake Rd. & Modoc County Line	5.2	12/10/46	Day Labor	Resurfacing	31,934	560	32,494
2WC2	Las. Mod	73, 28 210	Var	Bet. Horse Lake Rd. & Lakeview Jct. & Bet. Alturas & Stronghold	60	4/20/45	A. A. Tieslau & Son	Plant Mixed Bit. Mtl. & Seal Coat	134,589	9,622	144,211
2DC7	Lassen	FAS 988		Susanville to northside of Willow Cr. Valley	17.6	7/21/47	A. Teichert & Son, Inc.	Grade & R.M.S.	301,799	31,415	333,214
2DC9-P	Lassen, Modoc	FAS 988		Hayden Hill Rd. to Rte. 28	13.1	7/27/48	Harns Bros. & M. W. Brown	Grade & Seal Coat	902,450	12,037	914,487
	Lassen			Various Locations				Minor Contracts & D.L. Projects	5,331		5,331
0-7BVC1	Los Angeles	2	C	E. of Ventura County Line		12/28/48	Thomas Const. Co.	Cattlepass	10,645	1,221	11,866
0-7VC08d	Los Angeles	2	C	Through Malibu Mt.	3.2	8/25/48	Peter Kiewit Sons' Co.	Grade, Surface & 3 Bridges	643,041	66,188	709,229
1-7VC13E-F	Los Angeles	2	C	1.5 Mi. W. of Calabasas to 1.6 Mi. E. of Malibu	4.5	12/14/49	Basich Bros. Const. Co. & Basich Bros.	Grade, Surface & Structures	802,278	90,000	*892,278
7VC47	Los Angeles	2, 168	D, C	Various Locations		10/24/47-	Econolite Corp.	Traffic Sig. & Lighting	58,390	1,486	59,876

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-7VVC16	Los Angeles	2, 77, 166, 174	D, Alh, A, B	Various Locations		10/15/49	Westates Elec. Const. Co.	Signals & Lighting	\$21,290	\$1,950	\$23,240
7VC39	Los Angeles	2	D, Mtbl	Goodrich Blvd. to Concourse Ave.		6/18/47	Econolite Corp.	Signals	32,370	1,321	33,691
7VC50	Los Angeles	2	D, Wit	Whittier Blvd., Painter Ave., Redman Ave.		11/26/47	Electric & Machinery Service, Inc.	Signals	31,621	1,210	32,831
7VC24	Los Angeles	2	L.A.	Bet. Diamond St. & Sunset Blvd.		10/24/46	Chas. T. Brown	Storm Drain & Sanitary Sewer	185,855	11,873	197,728
14VC10	Los Angeles	2	L.A.	At Benton Way		2/4/46	Byerle & Dunn	R.C. Overcrossing	147,552	21,901	169,453
14VC20	Los Angeles	2	L.A.	At Silver Lake Blvd.		11/14/46	Guy F. Atkinson Co.	R.C. Overcrossing	425,853	35,153	461,006
14VC22	Los Angeles	2	L.A.	At Grand Ave.		12/9/46	Oberg Bros.	R.C. Crossing	239,009	19,991	259,000
14VC33-F	Los Angeles	2	L.A.	Vendome St. & Coronado St.		4/26/48	Chas. MacClosky Co.	2 Undercrossings	320,169	26,125	346,294
7VC82	Los Angeles	2	L.A.	Vineland Ave. to Barham Blvd.		6/29/48	Tri-Cities Elec. Serv.	Lighting	39,668	1,528	41,196
14VC37-F	Los Angeles	2	L.A.	Hollywood Pkwy. at Alvarado St.		10/20/47	Guy F. Atkinson Co.	Undercrossing	339,108	23,543	362,651
14VC44-F	Los Angeles	2	L.A.	Virgil Ave., Hoover St. & Rosemont Ave.		1/20/48	Spencer Webb Co.	2 Undercrossings & 1 Overcrossing	566,267	40,307	606,574
7VC35-FP	Los Angeles	2	L.A.	Vineland Ave. to Barham Blvd.	1.8	5/28/47	Peter Kiewit Sons' Co.	Grade, Pave & Structure	1,616,574	118,537	1,735,111
7VC73	Los Angeles	2	L.A.	E. Edgeware Rd. to 0.05 Mi. Easterly	0.05	4/22/48	McClain Const. Co.	Grade & Pave	14,805	2,083	16,888
0-14VC54-F	Los Angeles	2	L.A.	Bonnie Brae St. & Beaudry Ave.		5/14/48	J. E. Haddock, Ltd.	2 Grade Separation Structures	416,214	30,928	447,142
1-7VC132	Los Angeles	2	L.A.	On Hollywood Parkway bet. Holly Crest Drive & Vineland Ave.		10/11/49	Electric & Machinery Service, Inc.	Illuminated signs	3,722	564	4,286
0-14VC35	Los Angeles	2	L.A.	Melrose & Vermont Aves.		9/2/48	Spencer Webb Co.	Overcrossing & Undercrossing	948,005	51,000	*999,005
0-14VC76	Los Angeles	2	L.A.	Santa Monica Blvd. & Normandie Ave.		11/16/48	J. E. Haddock, Ltd.	2 Overcrossings & Approaches	574,530	43,930	618,465
0-14VC76	Los Angeles	2	L.A.	Western Ave.		12/15/48	Oberg Bros. Constr. Co.	Overcrossing	656,765	51,000	*707,765
0-14VC80	Los Angeles	2	L.A.	E. Edgeware Road		3/1/49	J. E. Haddock, Ltd.	Overcrossing	110,820	14,522	125,342
0-14VC77	Los Angeles	2	L.A.	Glendale Blvd.		1/3/49	J. E. Haddock, Ltd.	2 Undercrossings & Approaches	463,161	34,391	497,552
0-14VC79	Los Angeles	2	L.A.	Heliotrope Drive		2/17/49	Chas. MacClosky Co.	Undercrossing	490,894	30,658	521,552
0-7VC107	Los Angeles	2	L.A.	Normandie Ave. to Alexandria Ave.	0.2	4/8/49	McClain Const. Co.	Outer Highways	28,337	4,083	32,420
0-7VC108	Los Angeles	2	L.A.	Boston St. Extension	0.1	4/14/49	Drachne Rentals Co.	Grade & Surface	15,467	2,039	17,506
14VC49-F	Los Angeles	2	L.A.	On Hollywood Parkway at Figueroa St.		2/27/48	Carlo Bongiovanni	4 Undercrossings & 2 ramp separations	968,628	60,882	1,029,510
0-14VC64	Los Angeles	2	L.A.	On Hollywood Parkway at Spring Street		8/23/48	Oberg Bros. Const. Co.	Overcrossing	207,908	12,717	220,625
0-7VC95	Los Angeles	2	L.A.	Vineland Ave. to Barham Blvd.	1.8	11/19/48	Henry C. Soto Corp.	Landscape	25,521	3,037	28,558

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
14VC32-FP	Los Angeles...	2, 165	L.A.	Hollywood, Arroyo-Seco & Harbor Freeways	---	6/ 4/47	James I. Barnes Const. Co.	4 Level Structures	\$1,065,591	\$115,065	\$1,183,656
1-14VC97-F	Los Angeles	2	L.A.	Over Hollywood Freeway at Hill Street	---	2/ 8/50	Spencer Webb Co.	RC Bridge	418,694	30,000	*448,694
0-7VC120-F	Los Angeles	2	L.A.	Virgil Ave. to Glendale Blvd. on Hollywood Parkway	1.6	6/ 9/49	N. M. Ball Sons	Grade & Surface	1,301,402	136,000	*1,437,402
0-7VC127-F	Los Angeles	2	L.A.	Glendale Blvd. to Grand Ave. on Hollywood Freeway	1.2	6/24/49	N. M. Ball Sons	Grade & Pave	937,075	120,000	*1,057,075
1-7VC158	Los Angeles	2	L.A.	Virgil to Grand	---	6/20/50	Newberry Electric Corp.	Lighting & Illuminated Signs	143,568	9,000	*152,568
1-14VC96-F	Los Angeles	2	L.A.	Inbound over Santa Monica Pkwy. outbound & Heliotrope Drive	---	12/15/49	Charles MacClosky Co.	Structure	492,057	36,000	*528,057
51-14VC7	Los Angeles	2	L.A.	Over Hollywood Freeway at Belmont Ave.	---	9/19/50	Byerts & Sons	Pedestrian Overcrossing	31,160	4,200	*35,360
0-7VC96	Los Angeles	2	L.A.	Hill St. to Spring St.	0.1	1/18/49	Guy F. Atkinson Co.	Grade, Pave, & Structures	938,368	100,000	*1,038,368
7VC21	Los Angeles	2	L.A.	On & Adjacent to Santa Ana Parkway Bet. Soto St. & Indiana St.	---	7/15/46	Mike Radich & Co.	Grade & Construct Storm Drain & Sanitary Sewer	375,885	26,733	402,618
14VC15	Los Angeles	2	L.A.	On Santa Ana Parkway at First St.	---	7/19/46	Haddock Co.	R. C. Undercrossing	175,255	7,260	182,515
7VC16	Los Angeles	2	L.A.	Kearney to Soto Sts.	---	1/14/46	Peter Kiewit Sons' Co.	P.C.C. & A.C.	1,376,339	113,769	1,495,108
14VC8	Los Angeles	2	L.A.	At Seventh St.	---	1/11/46	Byerts & Dunn	R.C. Overcrossing	247,667	23,096	270,763
14VC9	Los Angeles	2	L.A.	Santa Ana Pkwy., over Ramp 4 of Ramona Pkwy.	---	3/29/46	Contracting Engrs. Co.	Two Overhead Crossings	132,235	16,566	148,801
14VC11	Los Angeles	2	L.A.	At Fourth St.	---	1/ 5/46	Byerts & Dunn	R.C. Overcrossing	130,354	14,573	144,927
14VC14	Los Angeles	2	L.A.	At Boyle Ave.	---	7/25/46	Peter Kiewit Sons' Co.	R.C. Overcrossing	202,616	13,460	216,076
14VC24	Los Angeles	2	L.A.	At Olympic Pkwy.	---	12/30/46	Haddock Co.	R.C. Undercrossing	300,528	13,360	319,888
14VC23	Los Angeles	2	L.A.	At Lorena St.	---	12/11/46	W. J. Disteli	R.C. Box Girder Overcrossing	140,261	11,307	151,568
7VC25	Los Angeles	2	L.A.	At Esperanza St. & Indiana St.	---	12/31/46	Haddock Co.	Overcrossing & Undercrossing	239,673	19,769	259,442
7VC28	Los Angeles	2	L.A.	Kearney to Soto Sts.	---	2/ 4/47	Jannoch Nurseries	Landscaping	56,003	6,088	62,091
14VC30	Los Angeles	2	L.A.	At Euclid Ave. & Marietta St.	---	4/29/47	Spencer Webb Co.	2 R.C. Box Girder Undercross	284,498	18,891	273,439
14VC38	Los Angeles	2	L.A.	Soto St. Underpass	---	3/ 6/47	Oberg Bros.	R.C. Underpass	181,109	19,788	194,788
7VC37	Los Angeles	2	L.A.	Aliso—Kearney Sts.	---	5/13/47	Vido Kovacevich	Grade P.C.C. & A.C.	185,116	20,670	205,786
7VC44	Los Angeles	2	L.A.	Aliso St. to Kearney St.	---	7/11/47	Jannoch Nurseries	Landscaping	9,030	2,036	11,066
0-14VC84	Los Angeles	2	L.A.	Los Angeles Street	---	4/23/49	J. E. Haddock, Ltd.	RC Box Girder Bridges	463,658	32,000	*495,658
1-14VC93-F	Los Angeles	2	L.A.	On North Main Street	---	9/16/49	J. E. Haddock, Ltd.	RC Box Girder Bridges	576,105	39,000	*615,105
7VC49-F	Los Angeles	2	L.A., C	Calabassa to 1.5 Mi. Westerly	2.2	11/17/47	Spicer Co.	Grade & Surface	325,839	38,808	364,645
7VC59-F	Los Angeles	2	L.A., D	Soto St. to Eastman Ave.	2.0	2/13/48	Griffith Co.	Grade & Pave	1,062,852	80,061	1,142,913

DEPARTMENT OF PUBLIC WORKS

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-7VC91	Los Angeles	2	LA, D	Aliso St. to Eastman Ave.	---	9/27/48	Elec. & Mach. Serv., Inc.	Lighting	\$116,998	\$3,805	\$120,773
7V142	Los Angeles	2	LA, D	Aliso St. to Eastman Ave.	---	3/1/49	Day Labor	Signs & Lights	6,018	---	6,018
0-7VC99	Los Angeles	2	LA, D	Soto Street to Eastman Ave.	1.98	1/7/49	Huetig & Schromm	Landscape	46,764	4,270	*51,034
7VC81	Los Angeles	4	F	Pico Canyon Rd. to Rte. 79	3.3	6/24/48	N. M. Ball Sons	Grade & Pave	428,954	50,570	479,524
0-7VC87	Los Angeles	4	F, A	Saugus Rd. & Ventura Rd.	---	8/11/48	California Elec. Works	Signals & Lighting	35,343	2,210	35,553
0-7VC78	Los Angeles	4, 79	F, A, B, A	S. of Santa Clara River to Castaic Cr.	2.6	6/10/48	Griffith Co.	Grade & Pave	486,107	50,000	*536,107
51-7VC11	Los Angeles	4, 79	F, A, B, A	At Saugus Junction & at Castaic Junction	---	8/2/50	Jannoch Nurseries	Sprinkling System	3,869	900	*6,769
7VC31	Los Angeles	4	G	Palomas Cr. to Violin Saddle	2.6	3/10/47	Clyde W. Wood, Inc.	Grade & P. M. S.	798,702	74,581	873,283
7VC37	Los Angeles	4	G, H	Violin Saddle to Whitaker Summit	4.4	2/6/48	Winston Bros. Co.	Grade & Surface	1,375,168	98,915	1,474,083
7VC38	Los Angeles	4	H	9 Mi. N. of Castaic to Frenchman's Flat	3.8	5/29/47	Winston Bros. Co.	Grade & Surface	1,455,481	126,678	1,582,159
0-7VC109	Los Angeles	4	J	N. of Los Alamos Creek to S. of Rte. 59	6.7	4/14/49	Peter Kiewit Sons' Co.	Grade & Pave	968,921	100,000	*1,068,921
7V45	Los Angeles	4	Brb	Magnolia Ave. to Providencia Ave.	---	7/10/46	Day Labor	Traffic Signal	13,675	---	13,675
7AVC2	Los Angeles	4	Brb	Bet. Burbank Blvd. & Orange Grove Ave.	0.5	10/30/45	Jesse S. Smith	Grading & A.C. Paving	89,179	13,950	103,129
1-7VCV12	Los Angeles	4	Brb	Rte. 4 at San Fernando Blvd. & Burbank Blvd.	---	8/5/49	C. D. Draucker, Inc.	Lights & Signals	24,663	2,754	*27,417
1-7VC125	Los Angeles	4	Brb	San Fernando Blvd. to Burbank Blvd.	0.8	6/9/49	Griffith Co.	Grade & Pave	199,791	23,031	*222,822
51-7VC39	Los Angeles	4	Brb	Burbank Blvd. to Magnolia Blvd.	---	2/14/51	American Chain Link Mach. Co.	Chain Link Fence	3,869	500	*4,369
51-7VC30	Los Angeles	4	Brb	Orange Grove Ave. to San Fernando Blvd.	0.6	1/11/51	Jesse S. Smith	Paving & Resurfacing	69,106	6,200	*75,306
1-7VC139	Los Angeles	4, 213	LA, SFr	At Various Locations	---	12/15/49	Clinton Electric Corp.	Signals & Lighting	24,902	2,828	*27,730
0-7VVC1	Los Angeles	9	A, B	On Foothill Blvd.	---	7/23/48	C. D. Draucker, Inc.	Signals & Channelization	70,334	3,736	74,070
7VW11	Los Angeles	9	A, B	On Foothill Blvd.	---	7/12/48	Day Labor	Signals & Channelization	6,057	---	6,057
14VC33	Los Angeles	9	G	Across San Gabriel River near Azusa	---	6/26/47	Bonadiman-McCain, Inc.	Reconstruct Bridge	44,184	6,118	50,302
7VC34	Los Angeles	9	H	Bet. Citrus Ave. & Grand Ave.	1.0	4/29/47	Griffith Company	Surfacing	7,873	646	8,519
0-7VVC5	Los Angeles	9	J, Ada, Muro	Various Locations on Foothill Blvd.	---	10/6/48	C. D. Draucker, Inc.	Signals & Lighting	36,405	1,896	38,301
7V163	Los Angeles	9	N	Los Angeles Co. Line to Los Angeles City Limits	---	10/13/50	Day Labor	Widening	33,661	1,500	*35,161
0-7VVC11-P	Los Angeles	9	Cla	Foothill Blvd. at Indian Hill Blvd.	---	6/28/49	Paul R. Gardner	Signals & Lighting	9,873	1,153	11,026

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
7VC52-P	Los Angeles	9	Muro, G, H, Gdr	5th Ave. to Glendora Ave.	-----	1/17/48	Econolite Corp.	Signals & Lighting.	\$82,490	\$1,472	\$83,962
51-7VC14	Los Angeles	9	Pas, E	Sierra Madre Villa Ave. to Michillinda Ave.	0.8	8/18/50	J. E. Haddock, Ltd.	Grade & Surface.	75,581	10,000	*85,581
7V162	Los Angeles	9, 165	Pas	At Various Intersections	-----	10/11/50	Day Labor	Temporary Signals	2,510	-----	*2,510
51-7VC33	Los Angeles	9, 168	Pas, E, C	At Rosemead Blvd.	-----	1/22/51	Fischbach & Moore of Calif., Inc.	Signals & Lighting.	10,998	1,250	*12,248
1-7VVC13	Los Angeles	9	SFr	Macday at 7th St.	-----	9/21/49	C. D. Draucker, Inc.	Signals.	2,055	347	2,402
7XC22	Los Angeles	19	B, Pom	Bet. Rte. 77 & Pomona	0.7	10/17/46	Matich Bros.	Grade & Widen with P.C.C.	72,373	9,414	81,787
0-7VC88	Los Angeles	19	Pom	White Ave. to Garey	0.5	8/11/48	Cox Bros. Const. Co.	Surfacing.	39,191	1,873	41,164
7V146	Los Angeles	23, 79	C,D,E,B	Williams Ranch to Palmdale & Jet. Rte. 23 to Saugus	10.7	7/ 1/49	Day Labor	Shoulders.	55,134	1,548	56,682
7VC26	Los Angeles	23	E, F	About 0.5 Mi. N. of Palmdale	0.8	12/30/46	A. A. Edmondson	Grade & Surface.	60,829	280	61,109
1-7VVC19	Los Angeles	23	F	Intersection Sierra Highway & 10th St.	-----	3/13/50	Electric & Machinery Service, Inc.	Signals.	5,100	600	*5,700
0-7VC74	Los Angeles	23	G	Lancaster to Kern County Line	8.1	4/22/48	G. W. Ellis Const. Co.	Resurfacing	96,679	8,835	105,514
0-7VC68	Los Angeles	23	I	Rte. 79 to $\frac{1}{2}$ Mi. S. of Santa Clara River.	4.0	4/ 1/48	Schroeder & Co.	Grade & P.M.S.	74,137	5,392	79,529
52-7VC3	Los Angeles	23	I	0.5 Mi. South S.P.R.R. Overhead to Solamint	0.9	4/ 2/51	Basich Bros. Const. Co. N. L. & R. L. Basich.	Surface.	18,695	2,000	*20,695
52-7VC4	Los Angeles	23	LA, H	Tunnel Station to Northerly End of Section H	2.0	4/ 2/51	Basich Bros. Const. Co. N. L. & R. L. Basich.	Plant Mix Surface.	51,338	4,300	*55,638
0-7VC72	Los Angeles	26	A, EMte	New Ave. to Mountain View Ave.	3.9	4/15/48	Wm. Radkavich Co., Inc.	Grade & Surface.	108,790	7,986	116,776
0-7VVC9-P	Los Angeles	26, 172	A, MonP, Mtbl	Intersections of Garvey Ave. & Denton Ave. & 3d St. & Garfield	-----	4/27/49	Prescott Elect. & Mfg. Co.	Signals & Lighting.	13,132	1,124	*14,256

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
7XC36	Los Angeles	26	A, B EMte	San Gabriel Blvd.—Mt. View Rd.		6/ 6/47	C. D. Draucker Co.	Signals	\$55,781	\$5,000	*\$61,381
0-7VVC2	Los Angeles	26	B, WCov	Bet. Frazier St. & Barranca St.		7/29/48	Paul Gardner	Signals	76,085	3,221	79,906
7XC38	Los Angeles	26, 77	C, B	At Holt Ave. & Bellevue Ave.	0.5	6/24/47	Griffith Company	Widen & Surface	74,341	7,400	*\$1,741
7XC37	Los Angeles	26, 77	C, B	At Holt Ave. & Bellevue Ave.		6/24/47	Econolite Corp.	Signals & Lighting	30,941	3,000	*\$3,941
7VMC23	Los Angeles	26	Alh	Ramona Blvd. & Garvey Ave.		3/22/48	Econolite Corp.	Signals	14,083		14,083
7VC58	Los Angeles	26	L.A.	Macy St. to Indiana St.	1.8	2/13/48	Jannoch Nurseries	Landscape	40,044	2,691	43,635
7XC16	Los Angeles	26	L.A.	Bet. Macy St. & Indiana St.	1.9	4/26/46	Alcorn Fence Co.	Fence	26,927	1,843	28,773
1-7VC147	Los Angeles	26	L.A., D	Macy St. to Helen Drive		2/ 9/50	Electric & Machinery Services, Inc.	Signals & Lighting	36,052	4,000	*40,052
1-7VC130-F	Los Angeles	26	L.A., D	Evergreen Ave. to E. of Helen Drive	1.8	9/ 1/49	J. E. Haddock, Ltd.	Grade, Pave, & Structures	1,231,896	130,000	*1,361,896
7XMC4	Los Angeles	26	MonP, A	Various Locations		12/11/46	C. D. Draucker Co.	Traffic Signal	42,189	686	42,875
51-7VC19-P	Los Angeles	26, 167, 172	MonP, Mtbl	At Various Intersections		11/14/50	Westates Electrical Const. Co.	Signals & Lighting	20,579	2,000	*22,579
7V102	Los Angeles	59	D	Sandy Creek		2/ 2/48	Day Labor	R.C. Box Culvert	5,941	139	6,080
14VC45	Los Angeles	59	H	At Big Rock Wash		1/23/48	Troy Const., Inc.	2 R.C. Bridges	39,204	4,384	43,588
7VC23	Los Angeles	60	A	Laticoy Canyon to Malibu Cr.	4.5	10/14/46	Peter Kiewit Sons' Co.	Grade & Pave	1,633,924	143,893	1,777,817
0-7VC92	Los Angeles	60	A	Malibu Cr. to Las Flores Cr.	2.9	10/11/48	Disco, Inc., & Dix - Styl Const. Co., Inc.	Grade & Surface	483,651	52,068	535,719
0-7VC97	Los Angeles	60	A	Soldstice Canal to Malibu Cr.	3.3	1/ 4/49	Stephen L. Vistrica	Landscape	9,867	1,394	11,210
7V86	Los Angeles	60	B	0.4 Mi. Northerly of L.A. County Line		1/17/47	Day Labor	Reconst. Culvert	16,261	816	17,077
7VC83	Los Angeles	60, 158	C, B	Various Locations		3/ 5/48	Econolite Corp.	Signals	49,455	747	50,402
7V41	Los Angeles	60	ESeg, ManB	In El Segundo at El Segundo Blvd. & in Manhattan Beach at Rosecrans Blvd.		5/20/46	Day Labor	Widen & Channelize	3,768	128	3,896

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
7VC22	Los Angeles	60, 166	E-Seg, ManB, A	At Intersections of Rte. 60 with El Segundo Blvd. & Rosecrans Ave. & at Intersection of Rte. 166 with Washington Blvd.		7/19/46	Econolite Corp.	Traffic Signal Systems.	\$24,705	\$1,796	\$26,501
7VV65	Los Angeles	60, 179	LBch	Pacific Coast Highway & 7th St.		2/23/49	Day Labor	Signals	5,542		5,542
7V161	Los Angeles	60	LBch	At Ximeno Ave. & at Anaheim St.		9/1/50	Day Labor	Signals & Lighting	8,994		*8,994
7AVC3	Los Angeles	60	L.A. G, LBch	Dominquez Channel—S. Gabriel Ave.	0.7	4/25/46	James I. Barnes Const. Co.	Grade, Pave, & Bridges	1,996,111	195,000	*2,191,111
51-7VC9	Los Angeles	60	L.A.	A.T.S.F. Overhead to Figueroa St.	1.5	5/11/50	Griffith Company	Surface	17,680		*17,680
1-7VC131	Los Angeles	60	L.A.	Washington Blvd. to Venice Blvd.	0.4	9/15/49	Jesse S. Smith & A. A. Edmonson	Widen & Resurface	78,305	10,273	*88,578
7V147	Los Angeles	60	L.A.	Alameda St. to W. City Limit (portion)	1.2	7/1/49	Day Labor	Surface & Shoulders	49,647		49,647
51-7VC31-P	Los Angeles	60	L.A.	At Sunset Blvd. & at Chautauga Blvd.	0.7	1/29/51	Jesse S. Smith	Widen, Surface, & Widen Bridge	74,829	7,400	*82,229
7VMC9	Los Angeles	60, 175	ManB, HmB	At Center St. & Gould Lane		2/17/47	Econolite Corp.	Traffic Signals	25,903		25,913
0-7VMC38-P	Los Angeles	60	ManB	At Marine Ave.		7/17/48	Econolite Corp.	Signals	11,609		11,609
7VMC11	Los Angeles	60	RdoB, HmB	Redondo & Hermosa Beach		3/7/47	C. D. Draucker Co.	Signals	44,274	1,545	45,813
51-7VC45-P	Los Angeles	60	RdoB	At Vincent Street		4/24/51	C. D. Draucker, Inc.	Signals	3,171	320	*3,491
7VC80	Los Angeles	60	SMca	Colorado St. Tunnel to Lincoln Blvd.	0.6	6/18/48	J. E. Haddock, Ltd.	Base & Surfacing	79,397	7,780	87,176
0-7VVVC10	Los Angeles	60, 158	SMca, A	Palisades Beach Rd. at California Ave. & Sepulveda Blvd. at Constitution Ave.		5/6/49	Westates Elec. Const. Co.	Signals & Lighting	14,593	902	15,495
52-7VC2	Los Angeles	60	SMca	Western Tunnel Portal to California Ave. Incline	0.9	4/2/51	Schroeder & Co.	Plant Mix Surface	27,220	3,000	*30,220
7V169	Los Angeles	60	SMca	Western Tunnel Portal to California Ave. Incline	0.83	2/8/51	Day Labor	Subsealing	5,135		*5,135
7V134	Los Angeles	61	C, D	Angeles Crest Highway	8.3	7/1/48	Prison Labor	Grading	345,945	57,329	406,274

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
47X1	Los Angeles	61	C, D	Chilao to W. Isip Saddle	3.1	6/21/41	Prison Labor	Grading	\$1,016,829	\$35,500	\$1,052,029
7V148	Los Angeles	61	C, D	Los Angeles Crest Highway		7/1/49	Prison Labor	Grading	423,000	31,614	454,614
51-7VC16-P	Los Angeles	61	Cndl	At Various Locations		9/20/50	C. D. Draucker, Inc.	Signals & Lighting	30,345	3,000	*33,345
7V122	Los Angeles	62	B	N. Fork San Gabriel River		5/5/48	Day Labor	Replace Bridge	12,091	564	12,655
1-7VVC30	Los Angeles	77	A	Valley View Blvd. at Mountain View Rd.		3/14/50	Elec. & Mach. Service, Inc.	Signals	2,067	400	2,467
7V139	Los Angeles	77	A, Emte	San Bernardino Rd. to Rte. 26		12/14/48	Day Labor	Improve Drainage	13,895		13,895
7XMC2	Los Angeles	77	Alh, SGB	Various Locations		11/12/46	C. D. Draucker Co.	Signal System	57,226		57,226
0-7VC104	Los Angeles	77	Emte, A	San Bernardino Rd. to Garvey Ave.		1/20/49	Prescott Elec. & Mfg. Co.	Signals & Lights	14,924	2,100	*17,024
0-7VC101	Los Angeles	77	Emte, A	San Bernardino Rd. to Rte. 26	1.1	1/12/49	M. S. Mecham & Sons & Boddum & Peterson	Plant Mix Surfacing	187,093	23,098	210,191
7VC65	Los Angeles	77	SGb, A, EMte	San Gabriel Blvd. to Hoyt Ave.		3/17/48	Elec. & Mach. Serv., Inc.	Signals	35,338	2,100	37,438
0-7VC66	Los Angeles	79	B	Bet. Saugus & Rte. 4	2.3	4/1/48	Smith-Edmondson Co.	Grade & P.M.S.	28,856	2,827	31,683
7V145	Los Angeles	155	A	Decker Canyon Rd.	4.2	6/9/49	Day Labor	B.S.T. & Extend Culverts	13,895		13,895
51-7VC4	Los Angeles	158	A, LA	Ohio Ave. to Bolas St.	1.3	4/1/50	Jesse S. Smith	Grade & Plant Mix Surface	44,237	6,000	*50,237
7V112	Los Angeles	158	B	Centinella Ave. at Shauson & Jefferson Blvd.		2/26/48	Day Labor	Signals & Channelization	5,784		5,784
1-7VC112	Los Angeles	158	B, L.A.	Playa St. to E.C.L. of Culver City	1.0	4/21/49	J. E. Haddock, Ltd.	Widen & Resurf.	71,149	6,637	77,786
1-7VC152	Los Angeles	158	L.A.	Sunset to Ventura	7.5	5/3/50	Schroeder & Co.	Plant Mix Surface	195,018	25,000	*220,018
7X62	Los Angeles	161, 168	A, C	Colorado St. At Rosemead Blvd.		7/30/46	Day Labor	Widen Pav't & Const. Div. Strip.	6,189	509	6,698
7XC25	Los Angeles	161, 168, 9, 62	A, C, Azu	At Various Locations		11/26/46	Econolite Corporation	Signal System & Illumination	36,335	1,776	38,111
7VC40	Los Angeles	161, 9	Ada, Muro, G	In the Cities of Arcadia & Monrovia		6/30/47	Elec. & Mach. Serv., Inc.	Signals	39,020	200	*39,220

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
7VV102 1-7VC117	Los Angeles Los Angeles	161 161	Brb. Brb.	Various Locations W. City Limits of Burbank to Victory Blvd.	2.6	7/21/49 5/26/49	Day Labor Schroeder & Co.	Signals & Channelization Resurface	\$5,579 64,869	----- \$3,999	\$5,579 68,868
7XC33	Los Angeles	162	A	Doheny Dr.—La Brea Ave.	-----	5/9/47	C. D. Draucker Co.	Signals	67,742	6,375	*74,117
7X100	Los Angeles	164	A	Mt. 1.05 Ely from Sepulveda Blvd.	-----	10/2/47	Day Labor	C.M.P. Culvert	6,080	169	6,249
7VC60	Los Angeles	164	A, Haw	Redondo Beach to Century Blvd.	-----	2/20/48	C. D. Draucker, Inc.	Signals	81,325	3,433	84,758
0-7VVC4	Los Angeles	164	A, Haw	166th St. to 132d St.	-----	9/17/48	Econolite Corp.	Signals	28,201	1,568	29,759
51-7VC3	Los Angeles	164	A	Imperial Highway to Century Blvd.	1.1	4/1/50	Oswald Bros. Co.	Surface	28,686	6,000	*34,686
0-7VVC6	Los Angeles	164	Ing	On La Brea Ave.	-----	1/4/49	Elec. & Mach. Serv., Inc.	Signals	19,123	2,186	21,309
51-7VC28	Los Angeles	164, 174	Ing	At Various Locations	-----	1/2/51	Electric & Machinery Service, Inc.	Signal System	14,945	1,500	*16,445
7VC46	Los Angeles	165, 167, 174	A, A SGt	Figueras St. & Carson St., Atlantic Ave. & Rosecrans Ave. & Firestone Blvd. & Garfield Ave.	-----	-----	-----	-----	-----	-----	-----
1-14VC95	Los Angeles	165	L.A.	At 1st & 2nd Streets	-----	10/2/47	Econolite Corp.	Signals	34,783	515	35,298
7XC21	Los Angeles	165	L.A.	Bet. College St. & Bernard St.	0.3	11/18/49	Oberg Bros. Construction Co.	RC Box Girder Bridges	420,787	32,800	*453,587
7XC30	Los Angeles	165	L.A.	College St. to Bernard St.	0.3	8/16/46	J. E. Haddock, Ltd.	Grading & Paving	288,824	23,721	310,545
14XC19	Los Angeles	165	L.A.	At Sunset Blvd.	-----	3/27/47	Jamnoch Nurseries	Landscaping	17,615	2,404	20,019
7XNC13	Los Angeles	165	L.A.	Bernard St. to Ave. 22	-----	1/28/47	Winston Bros. Co.	R.C. Crossing	487,640	34,000	*521,640
7XMC12	Los Angeles	165	L.A.	Bernard St. to Ave. 22	1.3	9/22/47	Huetting & Schromm	Landscaping	19,599	-----	19,599
7VC137	Los Angeles	165	L.A.	7th St. to Wishire Blvd.	-----	7/23/47	J. E. Haddock, Ltd.	Grade P.M.S. & P.C.C.	281,920	-----	281,920
14VC45F	Los Angeles	165	L.A.	Arroyo Seco Parkway at Alpine St.	-----	1/17/48	Day Labor	Open Street Connection	120,000	-----	120,000
14VC47F	Los Angeles	165	L.A.	Harbor Parkway at Temple St.	-----	5/14/48	G. W. Peterson	Overcrossing	105,353	9,385	115,738
51-7VC1	Los Angeles	165	L.A.	Marmion Way to Ave. 50 on Figueroa	1.1	10/14/47	James I. Barnes Const. Co.	Undercrossing	353,101	27,925	381,026
0-7VC102 51-7VC7	Los Angeles Los Angeles	165 165	L.A. L.A.	Arroyo Seco Parkway Lomita Blvd. to "I" St. on South Figueroa St.	0.2 1.2	4/1/50 1/12/49 5/8/50	C. O. Sparks, Inc., & Mundo Engr. Co. Jesse S. Smith Warren Southwest, Inc.	Surface Grade & Pave. Plant Mix Surface	14,960 101,864 55,911	2,500 12,316 6,656	*17,460 *114,180 *62,567

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
7V150	Los Angeles	165, 205	L.A., L.A., Pas, SPas	On Arroyo Seco Parkway	---	8/23/49	Day Labor	Refuge Areas	\$52,387	\$2,944	*\$55,331
7X55	Los Angeles	166	A	At Washington Blvd.	---	4/13/46	Day Labor	Widen Pavement, Curbs & Paint Stripes	5,471	28	5,499
1-7VC140	Los Angeles	166	A	On Anaheim-Telegraph Road	1.5	12/15/49	Griffith Co.	Grade & Surface	55,625	9,000	*\$64,625
1-7VC150	Los Angeles	166	A	On Anaheim-Telegraph Road at Slauon	---	4/ 4/ 50	Electric & Machinery	---	---	---	---
7V154	Los Angeles	166	A	La Verne Avenue to Eastland	0.9	1/12/50	Service, Inc.	Signals & Lighting	6,263	650	*6,913
0-14VC97	Los Angeles	166	A	La Verne Avenue to Eastland	0.9	9/15/48	Day Labor	Signs, Stripes & Markings	7,319	---	7,319
51-7VC22	Los Angeles	166	A	La Verne Avenue to Eastland Ave.	0.6	11/17/50	Griffith Co.	Grade, Pave & Structures	1,386,461	112,000	*1,498,461
1-14VC99	Los Angeles	166	A	Gage Ave. to Tweedy Lane	---	4/28/50	Henry C. Soto Corp.	Roadside Development	21,338	2,200	*23,538
0-7VC106	Los Angeles	166, 167	A, A	On Santa Ana Parkway	---	2/ 3/ 49	Macro Corp.	Bridge	290,716	29,500	*280,216
7VC54	Los Angeles	167	A, Lyn	At Atlantic Ave.	---	1/21/48	Econolite Corporation	Signals & Lighting	95,499	5,000	*100,499
7VC62	Los Angeles	167	A	Jardine & Everington Sis.	---	2/20/48	C. D. Draucker Co.	Signals	12,274	395	12,669
7VV42	Los Angeles	167	LBch	Various Locations	---	12/ 7/ 48	Econolite Corp.	Signals	12,811	794	13,605
7VV99	Los Angeles	167	LBch	Various Locations	---	7/21/49	Day Labor	Signals	3,757	---	3,757
1-7VC122	Los Angeles	167	Lyn, SGt	South City Limits to Patata St.	1.7	6/ 7/ 49	Day Labor	Signals	4,318	---	*4,318
7V144	Los Angeles	167	Lyn, SGt	Lynwood to South Gate	---	6/ 7/ 49	C. O. Sparks, Inc., & Mundo Eng. Co.	Resurface	45,256	4,800	*50,056
7XMC8	Los Angeles	167	Lyn, SGt	In the Cities of Lynwood & South Gate	2.9	5/ 2/ 49	Day Labor	Subsealing	6,379	---	6,379
1-7VC114	Los Angeles	167	SGt	At Patata St.	---	6/26/47	Econolite Corp.	Signals	31,156	---	31,156
7XC28	Los Angeles	167	Var.	Various Locations	---	5/ 6/ 49	Vido Kovacevich Co.	Drainage	14,458	1,629	16,087
7XC35	Los Angeles	168	A	On Lakewood Blvd., Bet. Spring St. & Conant St.	---	1/22/47	R. E. Ziebarth	Signal Systems	52,506	1,101	53,607
0-7VC94	Los Angeles	168	A, B	Bellflower Blvd. to Beverly Blvd.	0.7	5/20/47	Jesse S. Smith	Reconstruct & Surface Shldr.	29,625	1,471	31,096
0-7VC98	Los Angeles	168	A, B	Fresno Blvd. to Whittier Blvd.	5.9	11/19/48	Vido Kovacevich & Vido Kovacevich Co.	Grade & Surface	571,155	63,000	*634,155
7V140	Los Angeles	168	A, B	At Patata St.	---	12/23/48	Econolite Corp.	Signals & Lights	54,979	2,655	57,634
7VC20	L.A., Ora.	168, 80	B, B, B	Rosemead Blvd.	5.9	12/30/48	Day Labor	Signs & Stripes	4,977	---	4,977
				At Intersections of Rosemead & Washington Blvds., Coast Hwy. with Main St. & with Bay Blvd.	---	6/24/46	Econolite Corp.	Traffic Signals	22,587	1,338	23,925

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-7VC115 0-7VC128	Los Angeles Los Angeles	188 188	B, C B, C	Bet. Beverly Blvd. & Garvey Ave. On Rosemead Blvd. bet. Beverly Blvd. & Garvey Ave.	4.3	5/12/49 6/24/49	J. E. Haddock, Ltd. C. D. Draucker, Inc.	Grade & Surface. Signals & Lighting	\$505,182 43,086	\$89,500 4,000	*\$574,682 *47,086
7XC15	Los Angeles	188	C	Rosemead Blvd., bet. Huntington Dr. & Colorado St.	1.1	3/28/46	Griffith Company	Grading & A. C. Paving	122,380	14,987	137,367
7XC32	Los Angeles	188	C	Rosemead Blvd. at Broadway	5/1/47	5/1/47	Prescott Elec. & Mfg. Co.	Signal System	8,938	529	9,467
7XC66	Los Angeles	188	C	Colorado St. to Huntington Drive	2/6/48	2/6/48	Day Labor	Landscaping	2,386	279	2,665
0-7VC30	Los Angeles	188	C	At Longden Ave. & Dunbar Road	9/13/48	9/13/48	Econolite Corp.	Signals & Lighting	19,412	554	19,966
0-7VC86	Los Angeles	188	C	Longden Ave. to Huntington Drive	8/5/48	8/5/48	Vido Kovacevich Co.	Surfaceing	64,333	7,746	72,079
0-7VVC7 0-7VVC70	Los Angeles Los Angeles	170 170	A A	On Norwalk Blvd. Norwalk Blvd. to Orangehorpe Ave.	1/7/49 4/1/48	1/7/49 4/1/48	Tri-Cities Elec. Serv., Inc. Sully-Miller Contr. Co.	Signals & Lighting Plant Mixed Surfaceing	18,192 32,032	1,500 2,139	*19,692 34,171
7XC4	Los Angeles	170, 174	A, B	At Firestone Blvd. & San Antonio Dr.	1.9	8/9/46	Day Labor	Widen Pav't & Channelize	10,130	835	10,965
7XC20	Los Angeles	170	A	Bet. Sixth St. & 0.4 Mi. N. of Imperial Hwy.	1.0	7/26/46	Cox Bros. Const. Co.	Repair with P.M.S. & Widen Shldr.	16,741	1,648	18,389
7XC23 1-7VVC17	Los Angeles Los Angeles	170 170	A A	Bet. Sprout St. & Anaheim-Telegraph Rd. Pinecrest Ave. at Orangehorpe Ave. & Norwalk Blvd. at Anaheim-Telegraph Rd.	1.5	10/9/46	Griffith Company	Surfaceing	22,686	2,731	25,417
1-7VC113	Los Angeles	170	A	Orangehorpe Ave. to Firestone Blvd.	3.4	10/15/49	Westates Electrical Const. Co.	Lights & Signals Plant Mix Surfaceing	18,513 48,762	2,000 4,302	*20,513 *53,064
7V121	Los Angeles	170	Wit	Whittier Blvd. to Holbrook Ave.	4/16/48	4/21/49	John J. Swigert Co.	Widen & Pave	8,000	---	8,000
7VC64	Los Angeles	173	A	Indiana St. to Anaheim-Telegraph Rd.	2/27/48	2/27/48	Elec. & Mach. Serv., Inc.	Signals	23,125	686	23,811
7VC79	Los Angeles	173	L.A. SMca	Lincoln Blvd. to Bundy Drive	6/10/48	6/10/48	C. D. Draucker	Signals	49,272	1,164	50,436
7VC56P	Los Angeles	173	L.A. SMca	Lincoln Blvd. to Bundy Drive	2.3	2/2/48	J. E. Haddock, Ltd.	Grade & Surface	854,398	93,000	*947,398
51-7VC8	Los Angeles	173	L.A.	Olympic Blvd., Lemon to Boyle	0.7	4/28/50	Griffith Co.	Surfaceing	17,463	2,000	*19,463
1-7VVC14	Los Angeles	173	SMca	On Olympic Blvd.	9/19/49	9/19/49	Electric & Machinery Service, Inc.	Lighting	8,983	900	*9,883
1-7VC110 7XC29	Los Angeles Los Angeles	174 174	B B	Manchester Ave. to Calden Ave. Firestone Blvd., bet. Hooper Ave. & Santa Fe Ave.	0.4	4/21/49 1/31/47	Griffith Co. Prescott Elec. & Mfg. Co.	Surfaceing Tr. ffc Signal Systems	10,052 30,406	833 1,137	10,885 31,543

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
7XC31	L.A., Ora.	174	B, A	On Firestone Blvd., bet. Pioneer Blvd. & Lincoln Ave.	5.9	4/ 4/47	Jesse S. Smith	Resurface with P.M.S.	\$86,691	\$5,950	\$92,641
51-7VC5	Los Angeles	174	B	Firestone Blvd., Central to Ivy	1.3	4/ 1/50	C. O. Sparks, Inc., & Mundo Engr. Co.	Surface	28,731	5,000	*33,731
51-7VC24	Los Angeles	174	B	At Paramount Blvd., La Reina Ave., Downey Ave., & Church St.		12/ 5/50	Fishbach & Moore of Calif., Inc.	Signal System	10,184	900	*11,084
1-7VC134	Los Angeles	174	B	Woodruff to Bloomfield on Firestone Blvd.		11/29/49	Electric & Machinery Service, Inc.	Signals & Lighting	29,712	3,000	*32,712
1-7VC133	Los Angeles	174	B	Lakewood Blvd. to Rosecrans		10/28/49	Basch Bros. Const. Co. & Basch Bros.	Grade, Widen, Pave & Structures	455,465	60,000	*515,465
1-7VC143	Los Angeles	174	B	Rosecrans to Valley View on Firestone Blvd.		1/23/50	C. D. Draucker, Inc.	Signals & Lighting	23,552	2,500	*26,452
1-7VC141-F	Los Angeles	174	B	Rosecrans Ave. to Orange County Line	3.5	1/ 3/50	Peter Kiewit Sons' Co.	Grade, Pave, & Structures	676,904	75,000	*751,904
1-7VVC15	Los Angeles	174	Ing	On Manchester Blvd.		9/28/49	Electric & Machinery Service, Inc.	Signals	6,733	800	*7,533
0-7VC103	Los Angeles	174	SGt	Firestone Blvd.	0.6	1/12/49	O'Brien & Bell Const. Co.	Grade & Pave	147,370	16,000	*163,370
0-7VC93	Los Angeles	174	SGt, B	L.A. River to Paramount Blvd.	1.9	10/22/48	Cox Bros. Const. Co.	Resurface	102,081	11,141	113,222
51-7VC35-P	Los Angeles	174	SGt	At Rayo Avenue		1/24/51	Fishbach & Moore of Calif., Inc.	Signals, Lighting, & Channelization	20,199	2,000	*22,199
7X94	Los Angeles	178	A	Bet. Charlemagne Ave. & Bellflower Blvd.		6/23/47	Day Labor	Storm Drain	6,000		6,000
1-7VVC22	Los Angeles	178	A	Carson St. at Clark		4/26/50	Westates Electrical Co.	Signals & Lighting	8,523	900	*9,423
1-14VC82	Los Angeles	178	A	San Gabriel River	0.5	4/ 8/49	R. M. Price Co. & O. B. Person	Const. Bridge & Approach	296,308	31,640	327,948
0-7VC100	Los Angeles	205	L.A., SPas	On Arroyo Seco Parkway	3.2	1/ 7/49	Alcorn Fence Co.	Chain Link Fence	23,809	2,311	26,120
7V132	Los Angeles	205	L.A.	Arroyo Seco Parkway		6/26/49	Day Labor	Safety Devices	42,833	713	43,546
0-7VC105P	Los Angeles	205	SPas, SPas	At Fair Oaks Ave. & State St.		1/20/49	J. E. Haddock, Ltd.	Off-Ramp	23,607	3,345	26,952
0-7VC116	Los Angeles	205	SPas	Orange Grove Avenue & Fair Oaks Avenue		5/21/49	Electric & Machinery Service, Inc.	Lighting	6,044	589	6,633

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-7VC137	Los Angeles	213	SFr, L.A.	Pacoima Creek to Sayre Avenue.....	1.6	12/ 2/49	Vido Kovacevich Co.	Grade & A.C. Pave.....	\$242,143	\$36,000	*\$278,143
14ASC4	Los Angeles	Access	L.A.	At Nicholson Ave.....		6/ 3/46	Oberg Bros.	Overhead Crossing.....	267,405	39,865	*\$307,270
7ASC14	Los Angeles	Access	L.A., LBCh	Term. Is. Freeway Bet. Henry Ford Ave. & Willow St.....	2.1	4/18/46	Macco Const. Co.	Grade & Pave with A.C.....	1,253,808	2,054	1,255,862
14ASC2	Los Angeles	Access	L.A.	Union Pacific R.R. Overhead.....		4/18/46	Macco Const. Co.	Overhead Str. Steel.....	585,129	34,885	*\$620,014
14ASC3	Los Angeles	Access	L.A.	Over tracks of U.P., S.P. & P.E. at Anaheim.....		4/18/46	E. W. Elliot Const. Co.	Struct. Steel Overhead Cross.....	852,809	47,016	*\$899,825
14DC35	Los Angeles	FAS 825		Across N. Fork of San Gabriel Riv.....		4/ 9/48	Norman I. Fadel	Const. Steel Bridge.....	364,823	3,605	*\$368,428
14DC24	Los Angeles	FAS 830		Over Santa Clara River & S.P.R.R.....		7/31/47	Bent Const. Co.	Steel Bridge.....	221,156	3,139	224,295
14DC51	Los Angeles	FAS 834		Compton Creek Channel on Santa Fe Ave.....		7/29/49	Geo. W. Peterson & Jack W. Baker	R.C. Slab Bridge.....	185,812	428	186,240
14DC22	Los Angeles	FAS 838		Across Los Angeles River at Florence Ave.....	0.26	8/29/47	H. B. Nicholson	Bridge & Approaches.....	380,266	12,600	392,866
14DC64	Los Angeles	FAS 838		Across San Gabriel River on Florence Ave.....		1/20/50	Davies, Keusder, & Brown	R.C. Bridge.....	206,626	1,500	*\$208,126
14DC58	Los Angeles	FAS 840		Across San Gabriel River on Rosecrans Ave.....		10/11/49	John Strona	R.C. Bridge.....	206,774	1,500	*\$208,274
14DC49	Los Angeles	FAS 849		Santa Fe Dam Outlet.....		4/14/49	C. B. Tuttle Co.	Const. R.C. Bridge.....	64,829	510	65,339
14DC50	Los Angeles	FAS 852		Across San Gabriel River on Valley Blvd.....		6/ 9/49	W. J. Distel	Bridge & Approaches.....	574,588	6,800	*\$581,388
0-7VVC3	Los Angeles	Various		At Various Locations.....		8/ 5/48	Tri-Cities Elect. Serv.	Signals & Lighting.....	45,215	2,835	48,050
7XC26	L.A., Ora	Various		Various Locations.....		12/ 2/46	Econolie Corp.	Signal Systems.....	45,247	2,036	47,283
7VC52	L.A., Ora	Various		Various Locations.....		12/18/47	Tri-Cities Elec. Serv.	Signal & Lights.....	29,633	1,290	30,923

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
	Los Angeles			Various Locations				Minor Contracts & D.L. Projects	\$234,753	\$1,390	\$236,143
6TC10F	Madera	4	A	San Joaquin River to Arcola School	7.1	1/15/48	Harns Bros.	Grade & Pavt.	974,094	74,565	1,048,659
52-6TC1	Madera	4	A, Mad	Cottonwood Creek to the North City Limits of Madera.	4.1	4/ 2/51	P. J. Moore & Son	Plant Mix Surface	80,259	9,500	*89,759
6T4	Madera	4	B, C	Bet. 7.8 Mi. N. of Madera & Merced Co. Line.		4/19/46	Day Labor	Restoring Oiled Borders.	10,767	*212	10,909
1-6TC16-F	Madera	4	B	N. of Dry Cr. to N. of Brenda	2.7	4/20/49	Guy F. Atkinson Co.	Grade, Surface & Const. R.C. Bridge	333,611	30,295	363,967
0-14TC44	Mad. Fre	4	C, A	See Fresno County		6/28/50	R. O. Ferguson Co.	Lighting	3,270	550	*3,820
1-6TC21	Madera	4	C	At Califa Wye.		10/ 3/50	Thomas Construction Co.	Repair, Surface & Bridges.	51,440	4,756	*56,196
51-14TC16	Madera	32	A	At Ash Creek & at Berenda Slough.		3/26/48	Trewhitt-Shields & Fisher	Underpass & Approaches	128,655	26,196	*154,851
14-DGTC1	Madera	126	B	A.T. & S.F.R.R. E. of Madera.	0.6	8/31/50	Clinton Electric Corp.	Signals & Lighting	4,178	900	*5,078
51-6TC4-P	Madera	126	Mad	Yosemite Ave. at "D" Street							
14DC16	Mad. Fre	FAS 811		See Fresno County							
6DC12	Madera	FAS 864		Lincoln Rd. to State Rte. 32	5.5	7/28/48	Ted F. Baum	Grade & Surface	77,032	10,582	87,614
14DC11	Madera	FAS 962		Across Fine Gold Cr.	0.2	4/23/47	Dan Caputo	Steel Bridge & Approaches	74,573	6,327	80,900
6DC20	Madera	FAS 962		At Little Fine Gold Cr.	0.5	9/ 8/49	W. C. Lefever & D. Gerald Bing	Const. Bridge & Approaches	37,698	5,637	43,335
	Madera			Various Locations				Minor Contracts & D.L. Projects	11,908		11,908
4T34	Marin	1	A	At Ignacio Wye.		6/ 5/46	Day Labor	Traffic Signals	8,265	431	8,696
4T54	Marin	1	A	At Grand Ave. in Novato		1/22/47	Day Labor	Install Signals & Lights	7,290	432	7,722
4TC21	Mrs. Son	1	A, C	See Sonoma County							
0-4TC51	Marin	1	A	1.6 Mi. N. of Novato to Ignacio	2.3	4/29/48	A. G. Raisch Co.	Resurfacing	67,931	6,894	74,825
1-4TC88	Marin	1	A, SRf, CMad, C	Ignacio to Richardson Bridge	4.3	7/12/49	A. G. Raisch Co.	Surface & Const. Outer Highway	247,903	32,000	*279,903
4TC60	Marin	1	C	At Greenbrae		6/23/48	Brown-Ely Co., Contrs.	Signals & Channelization	65,935	9,289	75,204
4TC33	Marin	1	C	Bet. San Rafael & Waldo	2.1	4/16/47	Lee J. Himmel	Surfacing	70,744	4,532	75,276
4T120	Marin	1	C	At Greenbrae Intersection		10/ 4/49	Day Labor	Reconstruct Intersection	7,193		7,193

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
4T119	Marin	1	C	On Richardson Bay Br. No. 27-10	---	10/ 4/49	Day Labor	Repair Surface	\$10,721	---	\$10,721
4TC27	Marin	1	D, C, A	Bet. Waldo & Ignacio	1.5	6/28/46	Brown-Ely Co.	Repair with A.C. & Const. Shldrs.	64,196	\$4,876	69,072
0-4TTC3	Marin	1	CMad	Corte Madera Intersection	0.2	10/14/48	Baldwin, Staub Corp.	Signals & Lighting	25,817	5,765	31,582
4T29	Marin	1	SRf, C	Bet. Sta. 97+90± & Sta. 42+50±	---	12/26/45	Day Labor	Guard Rail	5,034	8	5,042
14TC18	Marin	1, Fhr	SRf	At Linden Laue	---	2/13/47	Parish Bros. & Lew Jones Const. Co.	Grade Separations & Approaches	246,404	23,500	*269,904
14TC12	Marin	8	A	Across Novato Cr. about 9 Mi. N. of San Rafael	---	7/17/46	William B. Willett Co.	Repair Bridge	5,752	516	6,268
1-14TC58	Marin	8	A	Peraduna Cr.	---	4/ 1/49	Evans Const. Co.	Redeck Bridge	21,821	1,274	23,195
0-4TC66	Marin	8	A	Ignacio Wye to County Line	3.1	12/ 3/48	Parish Bros.	Grade & Surface	365,955	46,500	*412,455
1-4TC104	Marin	69	SRf, A	½ Mi. to 1 Mi. E. of San Quentin Wye	---	5/23/50	Carey Bros. Const. Co.	Const. Dike	11,484	1,800	13,084
4DC9	Marin	FAS 879	---	Point Reyes Sta. to 9 Mi. W. of Novato	9.9	4/22/48	A. G. Raisch Co.	Grade & Surface	216,669	15,410	232,079
---	Marin	---	---	Various Locations	---	---	---	Minor Contracts & D.L. Projects	39,569	---	39,569
51-10TC7	Mpa, Mer	18	A, I, A	See Merced County	---	---	---	---	---	---	---
10TC2	Mariposa	110	B	Westerly Boundary of Mariposa County to Coulterville	8.5	7/ 1/48	Day Labor	Grade & Surface	25,000	2,500	*27,500
10DC12	Mariposa	FAS 965	---	Coulterville to 2 Mi. Northeastly	2.0	6/12/50	Paul E. Woolf	Grade & Surface	60,734	10,330	*71,064
14DC26	Mariposa	FAS 966, 963	---	17 Mi. W. of Mariposa to 12 Mi. E. of Mariposa	---	---	---	---	---	---	---
---	Mariposa	---	---	Various Locations	---	---	---	Constructing 6 Bridges	79,377	9,514	88,891
---	Mariposa	---	---	---	---	---	---	Minor Contracts & Day Labor Projects	9,800	---	9,800
1TC15	Mendocino	1	B	Bet. Burke Hill & 1 Mi. N.	1.0	6/21/46	C. M. Syar	Repair with Imp. Base Matl. & P.M.S.	38,385	4,128	42,513
1TC19	Mendocino	1	B	Bet. Hopland & Crawford Ranch	6.6	4/ 8/47	Clements & Co.	Plant Mix. Surf. & Seal Coat	159,023	14,376	173,399
0-1TC24	Mendocino	1	C, D	1.5 Mi. S. to 3.5 Mi. N. of Forsythe Cr.	5.2	4/14/48	Guy F. Atkinson Co.	Grade, Surface & Const. Bridge	924,843	111,673	1,036,516

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1773	Mendocino	1	D	About 14 Mi. N. of Ukiah	---	10/ 4/49	Day Labor	Horizontal Pipe Drains	\$8,971	---	*\$8,971
17C16	Mendocino	1	E	Bet. N.W.P.R.R. Grade Crossing & N.W. P.R.R. Underpass	0.8	10/14/46	A. R. McEwen & C. M. Syar	Grade & Surface	145,670	\$24,479	170,149
17C10	Mendocino	1	E	Bet. N.W.P.R.R. Underpass & 1.1 Mi. S. of Willits	2.0	6/ 9/45	A. R. McEwen	Repair with Imp. Base & P.M. Bit. Matl.	30,009	6,265	36,274
17C14	Mendocino	1	E	Bet. Willits & 2.6 Mi. Northerly	2.6	5/10/46	C. M. Syar	Plant Mixed Surfacing	74,473	8,303	82,776
0-17C22	Mendocino	1	H, I	2.8 Mi. S. to 1.0 Mi. N. of Rattlesnake Summit	3.8	4/ 1/48	C. M. Syar	Grade & Pavc	117,317	13,137	130,454
1787	Mendocino	1	H	Station 385+20 to Station 398+70	0.3	3/ 3/49	Day Labor	Realignm't	7,892	366	8,258
1-17C36	Mendocino	1	H	Sherwood Rd. to Sapp Cr.	8.4	4/ 1/49	Clements & Co.	Plant Mix Surfacing	304,985	18,873	323,858
17L8	Mendocino	1	I	Rattlesnake Cr.	---	9/18/47	Day Labor	Bridge Repairs	16,871	---	16,871
147C35	Mendocino	1	J	At Rock Cr.	0.6	1/26/48	H. W. Ruby	Bridge & Approaches	174,688	14,782	189,470
17C17F	Mendocino	1	K	Red Mountain Cr. to Piercy	4.6	10/31/46	Oilfields Trucking Co. & Phoenix Const. Co.	Grade & Pavc	787,803	88,017	875,820
147C27	Mendocino	1	K	At Red Mountain Cr. & McCoy Cr.	---	9/30/47	James H. McFarland	Repairing 2 Bridges	28,338	3,068	31,406
1738	Mendocino	1	K	At Red Mountain Cr.	---	5/ 9/47	Day Labor	Bridge Repairs	11,904	---	11,904
51-17C8	Mendocino	1	Uki	Smith St. to Low Gap Road	0.6	5/23/50	O. C. Jones & Son	Grade, Pavc, & Structures	209,649	37,000	*246,649
1780	Mendocino	15	A	Across Russian River	---	11/22/50	Day Labor	Repair Bridge	7,241	---	*7,241
147LC9	Mendocino	16	A	At Dooley Cr. 1 Mi. E. of Hopland	---	4/22/46	F. Fredenbug	R.C. Bridge & Approaches	41,367	4,547	45,914
17L1C5	Mendocino	48	A	At Red Bank Cr. & Lost Cr.	0.4	9/16/46	C. M. Syar	Grade & Imp. Base Matl.	31,336	5,410	36,746
51-147C8	Mendocino	48	A	At Whittall Creek & Burger Catlepass	6/ 3/50	6/ 3/50	Kenneth Whitel	RC Culvert & Catlepass	15,419	3,200	*18,619
1-17C37	Mendocino	48	A	Maple Creek to 1.2 Mi. Easterly	1.2	5/20/49	A. R. McEwen	Grade & Plant Mix Surface	118,812	22,050	*140,862
17W4	Mendocino	48	B	At Anderson Cr. Br. No. 10-64	---	5/10/46	Day Labor	Repair Bridge	7,981	7	7,988
147C29	Mendocino	48, 56	C, CD	Navarro River 4 Mi. S. of Albion	0.8	11/ 6/47	Johnson Rock Co.	Const. Bridge & Approach	330,685	50,517	381,202
17L1C4	Mendocino	56	A	At Slick Rock Cr.	1.0	5/16/46	Piombo Bros. & Co.	Grade & Imp. Base Matl.	118,949	17,029	135,978
0-17C26	Mendocino	56	A	At St. Ores Cr. about 11.5 Mi. S. of Point Arena	0.5	5/ 5/48	Arthur B. Siri, Inc. & Baldwin-Straub Corp.	Grade, R.M.S. & Culverts	72,056	12,703	84,759

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1WLC3	Mendocino	56	B	At Alder Cr. about 7 Mi. N. of Point Arena	1.2	9/24/45 5/ 5/50	Guertin Bros. Reed & Tuttle	Grading, Surfacing & Bridge Repair Bridge	\$198,762 20,308	\$30,140 8,150	\$228,902 *20,458
51-14TC6	Mendocino	56	B	Across Mallo Pass Creek	1.2	5/ 5/50	Guertin Bros. Reed & Tuttle	Grading, Surfacing & Bridge Repair Bridge	\$198,762 20,308	\$30,140 8,150	\$228,902 *20,458
1WC8	Mendocino	56	D	Bel. Navarro River & Mendocino	1.9	6/26/45	W. C. Railing	Repair with Imp. Base Matl. & Seal Coat	29,789 80,564	2,213 5,076	32,002 85,640
0-14TC65	Mendocino	56	D	Across Big River	5/ 5/49	5/ 5/49	Metzger Company	Repair Bridge	29,789 80,564	2,213 5,076	32,002 85,640
1-14TC69	Mendocino	56	D	At Salmon Creek, 0.6 Mi. S. of Albion	6/22/49	6/22/49	Judson-Pacific-Murphy Corp.	Steel Truss Bridge	329,281	34,000	*363,281
14WLC38	Mendocino	56	E	Bel. Bromley Cr. & Fort Bragg	3.8	10/25/46	Guy F. Atkinson Co.	2 Bridges, Grade & P.M.S.	944,093	91,179	1,035,272
14WLC56F	Mendocino	56	E	Across Noyo River	6/27/47	6/27/47	J. H. Pomeroy & Co., Inc.	Bridge Superstructure	449,211	18,886	468,097
1WLC1	Mendocino	56	F	At Chadburn Cr., about 13.4 Mi. N. of Fort Bragg	0.2	7/ 6/45	John Burman & Sons	Grading, Culvert & Surfacing	19,313	3,476	22,789
1WLC2	Mendocino	56	F	At Blue Slide Gulch	0.2	8/28/45	John Burman & Sons	Grading, Surfacing & Bridge	70,324	11,516	81,840
1WLC7	Mendocino	56	F	At Kibbesillah Creek	0.5	6/27/47	Arthur B. Siri	Grade & Surface	70,051	9,782	79,833
1TC28	Mendocino	56	F	At Virgin Creek	0.3	6/ 7/48	John Burman & Sons	Grade, Surface & Repair Bridge	56,364	8,685	65,049
1T71	Mendocino	56	F	Vicinity of Ten Mile River	8/23/49	8/23/49	Day Labor	Truck Scales	6,985	---	6,985
1TMC1	Mendocino	56	FBg	S.C.L. of Fort Bragg to Oak St.	0.2	6/ 8/48	Arthur B. Siri, Inc.	Grade & Surface	16,837	---	16,837
1DC3	Mendocino	FAS 505	---	On Longvale-Covelo Rd., Bet. 1.5 Mi. & 5.4 Mi. Easterly of Dos Rios	2.9	3/26/47	N. M. Ball Sons	Grading	179,634	18,524	198,158
14DC30	Mendocino	FAS 979	---	At Morrison Cr. S. of Ukiah	11/ 5/47	11/ 5/47	Kenneth White	Reinforced Concrete Bridge	13,544	534	14,078
1DC10	Mendocino	FAS 979	---	Rte. 1 to Rte. 70	10.4	4/ 1/49	Nevada Constructors, Inc.	Grade & Surface	176,932	18,979	195,911
1DC9	Mendocino	FAS 982	---	5.8 Mi. to 7.4 Mi. E. of Noyo	1.6	8/ 5/48	A. G. Raich Co. & Star- ling & Galbraith	Grade & Pen. Treat.	81,109	10,545	91,654
14DC36	Mendocino	FAS 982	---	Across Chamberlain Creek	5/25/48	5/25/48	Evans Const. Co.	R. C. Bridge	27,181	855	28,036
---	Mendocino	---	---	Various Locations	---	---	---	Minor Contracts & D.L. Projects	59,843	---	59,843
10T25	Merced	4	A	0.4 Mi. S. of Merced	4/24/46	4/24/46	Day Labor	Improve Intersection	6,344	483	6,827
0-10T31	Mer. Sta.	4	A,C,A,B	Madera County Line to Salda	4/ 9/48	4/ 9/48	Louis Biasotti & Son	Barrier Post	48,500	4,512	53,012
51-10TC6	Mer. Sta.	4	A, C, D, Lvtn	Atwater to Hatch Road	9.9	4/29/50	Stephen L. Vistica	Roadside Planting	12,914	2,000	*14,914

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
10TC11	Merced	4	C	Black Rascal Canal to Buhach Sta.	3.8	4/ 9/46	Gunner Corp.	Grade, Pave & Bridge	\$414,463	\$82,384	\$496,847
0-10TC38	Merced	4	C,D,I,IV	Atwater to Livingston	5.7	9/8/48	Guy F. Atkinson Co.	Grade & Pave	595,029	61,500	*656,529
1-10TC44	Mer, Sta	4	D, A, Cor, B	Merced River to Delhi & Merced County Line to Hatch Crossing	10.9	4/ 1/49	M. J. Ruddy & Son	Surfacing	88,541	11,174	89,715
10TC19	Mer, Sta	4, 110	D, C	Bet. 3 Mi. N. of Livingston & Stanislaus County Line & Bet. Modesto & Empire	8.9	5/16/47	M. J. Ruddy & Son	Plant Mixed Surfacing	63,182	6,500	*69,682
10TC13	Merced	4	Atw, C	Bet. Atwater & 2 Mi. N.	3.2	5/27/47	Gunner Corp.	Repair with P.M.S.	64,642	5,336	69,978
0-10TC41	Merced	4	Lvtn	At Cressy Way	12/ 4/48	12/ 4/48	R. Gould & Son	Signals & Light	16,015	559	16,574
10TC28	Merced	4	Mer	On 16th St. in Merced	2/20/48	2/20/48	R. Gould & Son	Signals	6,123	426	6,549
10TC17	Merced	18	A	Bet. Planada & 5.3 Mi. E.	5.3	4/22/47	M. J. Ruddy & Son	Plant Mixed Surfacing	84,524	7,742	92,266
51-10TC7	Mer, Mpa	18	A,A,I	1.7 Mi. W. of Mariposa County Line to Cathay Jct.	8.7	5/31/50	Rice Bros., Inc.	Plant Mix Surface	162,755	18,000	*180,755
14TC47	Merced	32	A, B	San Luis Creek	0.7	6/23/48	Granite Const. Co.	Bridge & Approaches	119,705	11,489	131,194
10W33	Merced	32	B	At Sta. 344+08	4/25/46	4/25/46	Day Labor	Widen Culvert	927	21	948
1-10TC42	Merced	32	B	Highline Canal to Los Banos	2.0	4/ 1/49	Granite Const. Co.	Plant Mix Surfacing	51,183	1,322	52,505
1-10TC56	Merced	32	B	San Luis Creek to Highline Canal (por.)	4.4	9/15/49	M. J. Ruddy & Son	Surface & Shoulders	96,935	9,600	*106,535
10WC12	Merced	32	C	Bet. San Joaquin Riv. & Madera Co. Line	3.0	6/21/46	Frank B. Marks & Sons	Repair with Untr. Rk. Base & P.M.S.	84,316	5,515	89,831
51-10TC3	Merced	32	C	10.4 Mi. E. of Los Banos to San Joaquin River	5.3	4/ 1/50	Valley Paving & Construction Co.	Plant Mix Surface	173,187	20,000	*193,187
14DGT14	Merced	41	B	At S.P.R.R. Crossings at Trent & at Volta	12/30/49	12/30/49	Day Labor	Flashing Signals	7,768		7,768
14WLC34	Merced	122	A	Across Mud Slough & Garzas Cr.	6/25/46	6/25/46	Dan Caputo	Bridge & Culvert	48,486	7,166	55,652
51-14TC4	Merced	122	A	Across San Joaquin River, about 6 Mi. E. of Gustine	4/12/50	4/12/50	H. W. Ruby	RC Bridge & Approaches	100,201	12,800	*113,001
0-10TC37	Merced	122	Gus, A	Gustine to San Joaquin River	2.7	8/25/48	Elmer J. Warner	Grade & Surfacing	124,375	1,258	125,633
0-10TC49	Merced	123	B	Cox Ferry Bridge to Shelling	6.3	6/ 1/49	River Rock, Inc.	Widen & Surface Shoulders	39,406	3,061	42,467

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
10DC4	Merced	FAS 914 957 1058		Three Locations	18.7	7/ 8/48	Frank B. Marks & Son	Base & Surfacing	\$206,428	\$12,192	\$218,620
1-14DC62-P	Merced	FAS 914 1058		Various Locations N. of Hillmar & Atwater		1/ 6/50	Kenneth Brown & F. Kaus	Widen 5 P.C. Bridges	14,740	1,572	16,312
14DC59-P	Merced	FAS 919		Dry Creek, 7 Mi. S. of La Grange		11/23/49	C. C. Gildersleeve	Construct Bridge	15,782	2,480	18,262
10DC8	Merced	FAS 1170		Los Banos to Pipe Line Road	8.7	8/22/49	Covina Const. Co.	Grade, Surface & Widen Bridge.	161,696	21,600	*183,296
	Merced			Various Locations				Minor Contracts & D.L. Projects.	33,711		33,711
14TC46	Modoc	28	A	North Fork of Ash Creek		6/11/48	Evans Const. Co.	Widen Bridge	7,954	1,099	9,053
2TC21P	Modoc	28, 210	A, A	Lassen County Line to Canby	20.8	5/16/47	Harns Bros.	Base and Seal Coat	158,856	14,001	172,857
2T44	Modoc	28	A, B	Adin to Alturas		4/28/47	Prison Labor	Widen Structure	52,035	3,947	55,982
1-2TC39	Modoc	28	B, Alt	Chambers Ranch to Alturas	10.6	8/31/49	Clements & Co.	Plant Mix Surface	263,036	29,200	*292,236
51-2TC1-F	Modoc	28	C	Toms Creek to Cedarville	8.9	4/15/50	Rand Construction Co., Inc.	Grade & Plant Mix Surface	308,418	36,000	*344,418
1-2TC34	Modoc	28	C	Toms Creek to Cedarville	8.1	5/24/49	R. B. Guern & Co.	Grading	634,765	73,000	*707,765
51-2TC7	Modoc	28	C	In Cedarville	0.8	7/ 6/50	Rand Construction Co., Inc.	Curbs & Gutters	13,338	1,550	*14,888
2WC2	Mod. Las	28, 73 210	Various	See Lassen County							
2W16	Modoc	73	A, B	Bet. Rte. 28 & Oregon State Line	16.2	3/13/46	Prison Labor	Grade & Pave	509,994	25,635	535,629
2W71	Modoc	73	A, B	Rte. 28 to State Line (Portions)	33.8	7/ 1/48	Prison Labor	Grade	249,944	17,248	267,192
2W77	Modoc	73	A, B	Rte. 28 to Oregon State Line	33.8	7/ 1/49	Prison Labor	Grading	279,742	23,171	*302,913
2W76	Modoc	73	A, B	Davis Creek to State Line	18.8	7/ 1/49	Day Labor	Prime & Seal Coat	19,076		19,076
51-2TC8	Modoc	73	A, B	N. of Davis Creek School to Oregon State Line	16.5	9/ 1/50	Rand Construction Co., Inc.	Road Mix Surface & Seal Coat	22,741	2,633	*25,374

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
2T72	Modoc	73	B	Sta. 448+50 to 848+00	7.6	10/11/48	Day Labor	Oiling	\$7,981		\$7,981
14WLC57	Modoc	73	C	Across S. Fork of Pit River at Likely		6/26/47	T. A. Kvale	Reinforced Concrete Bridge	32,062	\$6,781	38,843
2T73	Modoc	210	B	At Station 2152+31.7		10/19/48	Day Labor	R. C. Culvert	7,757	1,117	8,874
2DC3P	Mod. Sis.	910 FAS 755	B, A	Rte. 72 to 4 Mi. W. of Hatfield and 2.4 Mi. N. of Strouthead to Oregon State Line	22.8	5/ 1/47	Fairey - Hammond, Inc. & R. A. Farish				
2DC2	Modoc	FAS 513	B, C, D	Bet. Eagleville & 4 Mi. N. of Lake City	29.5	5/23/46	E. D. Bishop & D. Gerald Bing	Surface & Seal Coat	176,122	17,624	193,746
2DC9	Mod. Las.	FAS 988		See Lassen County				Grading & Plant Mixed Surf	404,775	42,373	447,148
	Modoc			Various Locations				Minor Contracts & D. L. Projects	8,212	159	8,371
9X7	Mono	13	A	Bet. Mi. 10.0 & Mi. 12.8	2.8	3/20/47	Day Labor	Widen & Resurface	5,353		5,353
9V14	Mono	23	A	At Rock Cr.		5/ 1/47	Day Labor	Culvert & Approaches	5,392		5,392
9V11	Mono	23	A, B	Bet. Mi. 1.00 "A" & Mi. 3.65 "B"	8.4	3/13/47	Day Labor	Bituminous Surface Treatment	12,442		12,442
9VC7	Mono	23	I	Bet. Point Ranch & Bridgeport	2.8	5/ 1/47	Geo. E. France	Repair & Plant Mixed Surfacing	40,379	5,091	45,470
51-9VC3	Mono	23	I	Conway Summit to Bodie Road	6.1	8/ 8/50	Harns Bros.	Plant Mix Surface	127,205	14,000	*141,205
9VC24	Mono	40	A	Sta. 0+00 to Sta. 133+00	2.5	7/21/48	Day Labor	Widen & Resurface	56,211	2,695	58,906
9X8	Mono	40	B	Bet. Mi. 0.0 & Mi. 3.4	3.4	3/20/47	Day Labor	Widen & Resurface	12,684		12,684
9XC3	Mono	40	C	Bet. Rte. 23 & Sheep Corral	6.3	6/28/46	Geo. E. France	Road Mix Surfacing	21,496	2,888	24,384
0-9VC12	Mono	40	D	Sheep Corral to Adobe Creek	16.0	5/ 6/48	Oilfields Trucking Co. & Phoenix Const. Co.	Resurfacing	47,402	3,826	51,228
1-9VC20	Mono	76	A, B	S. County Line to Benton Station	8.7	5/11/49	Arthur A. Johnson	Surface	60,280	5,752	66,032
0-9VC14	Mono	95	A	7 Mi. N. of Coleville to Nevada State Line	2.2	6/ 8/48	Westbrook & Pope	Grade & Surface	119,495	15,671	135,166
51-9VC7	Mono	95	A	Rte. 23 to Topaz Lake	9.3	5/18/50	Harns Bros.	Grade & Road Mix Surface	56,798	8,200	*64,998
9V27	Mono	96	A	4.9 Mi. N. Rte. 23 to Nev. State Line	6.3	7/ 1/49	Day Labor	Grade, Surface & Drainage	14,999	1,086	16,085
51-9VC2	Mono	111	A	1 Mi. N. of Grant Lake to Jet. with Rte. 23	1.5	4/28/50	Westbrook & Pope	Grade & Road Mix Surface	24,893	4,750	*29,643

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-9DC10-P	Mono.	FAS 959		0.4 to 4.2 Mi. W. of US Rte. 395.	3.6	1/17/50	Westbrook & Pope.	Grade & Drainage Facilities.	\$83,537	\$9,482	\$93,019
9DC7	Mono.	FAS 1092		State Rte. 23 to 10.5 Mi. Ely.	10.8	6/ 8/48	Browne & Krull.	Grade & Pen. Treat.	43,081	7,061	50,132
9DC2	Mono.	FAS 1093		Near Bridgeport on Twin Lakes Rd.	3.9	6/30/47	Dix-Syl Const. Co., Inc.	Grade & Bituminous Surface Treatment.	45,443	7,981	53,424
9DC3	Mono.	FAS 1094		Near Coleville.	3.4	8/29/47	Nevada Constructors, Inc.	Grade, Pen. Treat. & Tim. Br.	53,294	7,878	61,172
5TC5	Mono.			Various Locations.				Minor Contracts & D.L. Projects.	5,755		5,755
5WC4	Monterey	2	B	Bet. 2 Mi. S. of Salinas & Salinas	1.9	3/19/46	Granite Construction Co.	Grading & A.C. Paving.	208,926	27,880	236,806
51-5TC6	Monterey	2, 118, 56	B, A, J	Bet. Chualar & 3 Mi. N.; Bet. Salinas & Castroville & Bet. Werner Hill & Watsonville Jct.	3.7	5/ 1/47	Granite Const. Co.	Plant Mixed Surfacing.	23,071	995	24,016
51-5TC2	Monterey	2	B	At Sanborn Road.	0.1	12/ 5/50	Granite Construction Co.	Acceleration & Deceleration Lane	10,316	3,500	*13,816
51-5TC1	Monterey	2	C	Spence Underpass to 2 Mi. S. of Salinas.	2.4	4/ 6/50	Granite Construction Co.	Grade & Plant Mix Surface.	183,762	30,000	*213,762
0-5TC10	Monterey	2	G, F	Gonzales to Chualar.	4.9	4/ 1/50	Rice Bros., Inc.	Surfacing.	83,892	11,500	*95,392
1-5TC12	Monterey	2	G, F	San Ardo to King City.	3.6	4/22/48	Granite Const. Co.	Base and Surfacing.	202,626	17,098	219,724
5TC4	Monterey	2	J	San Ardo to King City.	4.0	5/19/49	Fredericksen & Kasler	Surfacing.	179,492	19,006	198,498
5TC7	Mon, Sbt.	2	J, B	Bet. Santa Rita & 0.8 Mi. N. of Crazy Horse Summit.	8.4	1/14/46	A. Teichert & Son, Inc.	Grading & Plant Mixed Surfacing.	745,257	66,643	811,900
5TC23	Monterey	2	J	Bet. 0.8 Mi. N. of Crazy Horse Summit & Chittenden Rd.	6.7	10/16/46	A. Teichert & Son, Inc.	Grading & Surfacing.	740,676	63,346	804,022
1-5TC14	Monterey	2, 117	Sal	Sta. 534+80 to Sta. 546+50.		7/29/48	Day Labor.	Outer Highway.	13,937		13,937
0-5TC11	Monterey	2, 117	Sal	S. City Limits Salinas to S. Main St.	0.8	8/ 3/49	Ted F. Baum.	Grade & Surface.	184,351	23,071	207,422
1-5TC15	Monterey	56	A	Various Locations.		6/29/50	R. Flatland.	Signal System.	17,392	3,000	*20,392
	Monterey	56	A	Salmon Creek.		8/ 9/48	Matthew & Jorgenson.	Const. Culvert & Approaches.	91,805	10,156	101,962
	Monterey	56	A	White Creek 16 Mi. N. of San Simeon.		11/ 2/49	W. M. Lyles Co.	Const. Drainage System.	25,069	2,855	27,924

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-14TC42	Monterey	56	B	Prewitt Creek	-----	5/24/48	Chas. O. Bodenhamer	Repair Bridge	\$18,737	\$2,886	\$21,623
51-14TC19	Monterey	56	B, A	Across Willow Creek & Villa Creek	-----	10/24/50	E. G. Perham	Repair Bridges	60,367	7,500	*67,867
1-14TC79	Monterey	56	B,C,D,E	San Simeon to Carmel	-----	9/ 8/49	William Radtke & Son	Repair Bridges	145,682	12,600	*158,282
0-14TC49-P	Monterey	56	F, G	15 to 26 Mi. S. of Monterey	-----	6/23/48	C. O. Bodenhamer	6 R.C. Culverts	28,094	3,307	31,401
5W14	Monterey	56	F	At Sta. 395+46	-----	4/15/48	Day Labor	Replace Bridge	5,700	-----	5,700
51-5TC5	Monterey	56, 117	Mon	At Del Monte Junction	-----	7/26/50	L. H. Leonardi Electric Const. Co.	Lighting System	3,846	675	*4,521
5WC3	Monterey	117, 56	A, I	Bet. Del Monte Jct. & Seaside Jct.	-----	6/28/46	N. M. Ball Sons	Grading & Paving	471,166	56,480	527,646
1-5TTC1	Monterey	117	Sal	At Romie Lane	-----	6/ 5/50	Eis-Hokin & Galvan	Signals	10,841	1,300	*12,141
5DC5	Monterey	FAS 595	-----	E. of Pajaro on San Juan-Watsonville Rd.	-----	8/ 4/48	Granite Const. Co.	Grade & Surface	118,556	13,184	131,740
5DC12-P	Monterey	FAS 661	-----	Robinson Canyon Road to Los Laureles Road	-----	12/14/49	John G. Mehren	Grade & Plant Mix Surface	178,500	5,815	184,315
5DC8	Monterey	FAS 662	-----	E. City Limits of Monterey to Seaside Jct.	-----	7/12/49	Granite Const. Co.	Grade & Surface	241,794	21,513	263,307
14DC25	Monterey	FAS 1084	-----	On Sanborn Rd. at S.P. Tracks	-----	9/18/47	Dan Caputo	Overhead Structure	180,249	2,012	182,261
-----	Monterey	-----	-----	Various Locations	-----	-----	-----	Minor Contracts & D.L. Projects	45,313	-----	45,313
4W27	Napa	6	A	Bet. Mi. 2.7 & Mi. 3.6	-----	4/22/46	Day Labor	Construct Base & Resurface	9,973	-----	9,973
14TC15	Napa	7	A	At Farm Rd. Undercrossing 4 Mi. N. of Vallejo	-----	8/ 9/46	Minton & Kubon	Reconstruct Undercrossing	11,952	942	12,894
1-10TC53	Nap. Sol.	7	A, H	¼ Mi. W. Napa Co. Line to Cordelia Underpass	-----	8/17/49	Parish Bros.	Pave with P.C.C.	297,758	28,900	*326,658
1-10TC36	Nap. Sol.	7	A, H	1 Mi. W. Napa Co. Line to Cordelia Underpass	-----	7/17/48	Parish Bros.	Grade	581,857	60,000	*641,857
1-4TC98	Napa	8, 49	A,D,Nap, B	Foster Road to Union Station	-----	1/10/50	Fredrickson Bros.	Grade & Plant Mix Surface	293,560	39,000	*332,560

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-4TC103-F	Napa	8	B	Intersection with FAS 776 and Imola Avenue	---	5/24/50	Fredrickson Bros.	Signals, Lighting & Channelization	\$58,345	\$9,500	*\$67,845
1WLC6	Nap. Lak	49	A, A	Bet. 0.1 Mi. Southerly & 1.5 Mi. Northerly of Napa-Lake County Line	0.8	3/24/47	Piombo Const. Co.	Grade, Surface & 2 Bridges	212,462	20,343	232,805
4T111	Napa	49	A	N. of Calistoga to Lake Co. Line	6.0	8/11/48	Day Labor	Resurface	49,300	2,000	*51,300
51-4TC9	Napa	49	A	1.5 to 4.5 Mi. S. of Lake Co. Line	2.0	7/26/50	C. M. Syar	Road Mix Surface	57,508	9,250	*66,758
1-4TC71	Napa	49	D	Napa Creek near W.C. L. of Napa	---	7/12/49	Dan Caputo	Const. Bridge & Approaches	38,754	3,352	42,106
51-4TC13-P	Napa	49	Cstg	Napa River to Foothill Blvd.	0.1	8/22/50	Harold Smith	Resurface & Drainage Facilities	17,065	2,550	*19,645
4TT138	Napa	49	SH1a	Elmhurst Street to Pratt Avenue	---	12/13/49	Day Labor	Improve Street	7,096	---	*7,096
0-4TC73	Napa	74, 8	A, B	Bet. Kelly Curve & Glass House Curve & bet. Rte. 74 & Napa Wye	2.4	11/ 5/48	Fredrickson Bros.	Grade & Pave	299,711	36,000	*335,711
4DC6	Napa	FAS 607	---	Silverado Trail, 4 Mi. NW. of Napa to Calistoga	4.7	5/ 1/47	Geo. E. Murray	Grade, Surface & Bridge	95,979	2,014	97,993
4DC12	Napa	FAS 776	---	Bet. Intersection FAS, Rte. 8-B with Imola Ave. & Intersection of FAS, Rte. 8-A with Foster Road & on S. Jefferson to S. City Limits of Napa	1.7	11/22/48	A. Teichert & Son, Inc.	Grade & Pave	114,734	6,702	121,536
14DC68-P	Napa	FAS 1165	---	At Conn Creek, 1 Mi. NE. of Yountville	---	4/12/50	W. E. Thomas Construction Co.	Widen Bridge	11,800	435	12,235
---	Napa	---	---	Various Locations	---	---	---	Minor Contracts & D.L. Projects	33,060	---	33,060
1-3TC63	Nevada	15	A	At Squirrel Creek 5 Mi. W. of Grass Valley	0.1	6/22/49	Miles & Bailey	Grade & Surface, Culverts	28,907	4,000	*32,907
3TC41-F	Nevada	17	B	1½ Mi. N. of Rattlesnake Cr. to Grass Valley	3.8	10/22/47	Fredrickson Bros.	Base & Surfacing	350,170	42,250	392,420
3T58	Nevada	25	NevC, A	Nevada City to 1.75 Mi. NW.	1.7	10/29/46	Day Labor	Grade	35,762	2,414	38,176
3TC38	Nevada	25	NevC, A	Bet. E. Broad St. in Nevada City & 2 Mi. Northwesterly	1.9	6/26/47	J. Henry Harris	Surfacing	52,681	5,559	58,240

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
3TC45	Nevada	37, 38	B, C, A	Three Locations	3.7	12/12/47	H. Earl Parker, Inc.	Grade & Surface	\$179,475	\$18,718	\$198,193
3791	Nev. Pla.	37	B, C, D	See Placer County							
3WC9	Nev. Pla.	38	A, B, C	See Placer County							
1-3TC64	Nevada	38	A	In Truckee at Commercial Row & Bridge Sts.	0.5	6/23/49	J. Henry Harris	Grade & Surface	66,155	9,400	*75,555
3DC21-P	Nevada	FAS 1038		Rte. 15 to Washington	5.9	6/12/50	Huntington Bros.	Grade, Pen. Treat. & Seal Coat.	151,363	20,376	*171,739
	Nevada			Various Locations				Minor Contracts & D.L. Projects	10,317		10,317
7VC27	Orange	2	A	Bet. 1 Mi. N. of Doheny Park & San Juan Cr.	0.9	1/ 2/47	Cox Bros. Const. Co.	Grade & Pavement	113,968	12,810	126,778
7VC42	Orange	2	A, B	Bet. 1 Mi. S. of Galivan & 1.4 Mi. N. of El Toro Rd.	3.4	6/30/47	Jesse S. Smith	Repair Shldrs.	15,657	1,560	17,217
7VC33	Orange	2	B	Near Irvine about 6 Mi. S. of Tustin		3/26/47	Catalina Const. Co.	Two Culverts	59,695	5,735	65,430
7VC45	Orange	2	B	Bet. El Toro & Irvine	2.2	8/22/47	O'Brien & Bell Const. Co.	U.T. Rock Base & P.M.S.	60,006	5,552	65,558
7VC19	Orange	2	B, C	Bet. 1.4 Mi. N. of El Toro Rd. & S. City Limits of Tustin	8.3	6/20/46	John J. Swigart Co.	Repair with P.M.S. & Widen Shldrs.	96,730	7,634	104,364
1-7VVC18	Orange	2, 43, 171	C, A, B	Grand Ave. at Commonwealth Ave. E. First at Tustin Ave.		11/18/49	Clinton Electric Corp.	Signals & Lighting	18,464	2,500	*20,964
7V133	Orange	2	F	Sta. 83+00 to Sta. 99+70	0.3	6/30/48	Day Labor	Drainage Improvement	16,879	511	17,390
7VC55-P	Orange	2, 178	Ana	Los Angeles St. & Center St.		1/21/48	Prescott Elec. & Mfg. Co.	Signals & Lighting	43,000	2,560	45,560
51-7VC12	Orange	2	Ful	At Amerige Ave. & Union Ave.		8/ 3/50	Fischbach & Moore of Calif., Inc.	Signal System	4,839	500	*5,339
11VC5	Ora. SD	2	SCle, D	See San Diego County							
7VC17	Orange	2	SCle	At Rte. 2 & Avenida Del Mar		3/ 1/46	C. D. Draucker Co.	Install Signals	5,570	726	6,296
7VC48	Orange	2	SCle	Bet. San Diego Co. Line & Valencia St. in San Clemente	1.8	11/ 3/47	O'Brien & Bell Const. Co.	Grade & Surface	93,037	13,503	106,540
11V16	Ora. SD	2	SCle, D	See San Diego County							
51-7VC6	Orange	2	SCle	Mt. 177 at Avenida Valencia to Mt. 389	2.1	4/ 1/50	Sully-Miller Contr. Co.	Surface	38,370	5,000	*43,370
7V156	Orange	2	SCle	Valencia Ave.	2.1	2/ 1/50	Day Labor	Subsealing	14,782		14,782

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-7VVC21-P	Orange	2	Tus	"D" St. at Main St.	---	3/14/50	Electric & Machinery Service, Inc.	Signals & Lights	\$8,506	\$900	*\$9,406
7V138	Orange	19	Ful	Sta. 35+00 to Sta. 108+50	1.4	12/17/48	Day Labor	Road Mix Shoulders	10,040	---	10,040
7VC71	Orange	43, 179, 183	A, A, A	On Harbor Blvd.	---	4/ 1/48	Tri-Cities Elec. Serv.	Signals & Lighting	30,239	1,273	31,512
0-7VC85	Orange	43	B	Bet. Heim Ave. & Peralta School	4.9	7/29/48	Peter Kiewit Sons' Co.	Grade & Surface	792,908	86,120	*\$879,028
51-7VC20	Orange	43	B	Heim Avenue to Peralta School	4.6	11/14/50	D & M Sprinkler Co.	Roadside Planting	11,669	1,250	*12,919
7V166	Orange	43	B	Peralta School to Riverside Co. Line	6.18	1/ 3/51	Day Labor	Subsaling	13,114	---	*13,114
1-8VC45	Oru, Riv	43	B, A	1.7 Mi. W. of Orange Co. Line to Corona	4.9	4/24/50	Peter Kiewit Sons' Co.	Grade & Plant Mix Surface	497,912	62,000	*\$559,912
7VC76	Orange	60	A, NptB	1.3 Mi. S. of Los Patos Ave. to Rte. 43	5.5	6/ 4/48	Sully-Miller Contr. Co.	Resurfacing	233,050	13,952	247,002
7V124	Orange	60	A, B, NptB	1.3 Mi. S. of Los Patos Ave. to Rte. 43	5.3	5/11/48	Day Labor	Subsaling	19,080	---	19,080
7VC67	Orange	60	A	Bet. Los Patos Ave. & 1.3 Mi. Southerly	1.3	4/ 1/48	O'Brien & Bell Const. Co.	Grade & Plant Mixed Surfacing	64,528	3,542	68,070
14VC17	Orange	60	B	Across N. Arm of Newport Bay	---	9/13/46	Case Construction Co.	Repair Bridge	35,880	3,746	39,626
1-7VVC146	Orange	60	B, LgnB	S. City Limits of Newport Beach to Myrtle Ave.	5.5	2/ 3/50	Hensler Construction Co.	Grade & Plant Mix Surface	351,740	45,000	*\$396,740
51-7VC32	Orange	60	B, NptB	Sea Scout Base to S. City Limits of New- port Beach	3.7	1/19/51	Cox Bros. Construction Co.	Widen & Plant Mix Surface	156,791	17,000	*173,791
7V164	Orange	60	B	Sea Scout Base to W. City Limits of Corona Del Mar	2.7	12/ 8/50	Day Labor	Subsaling	15,147	---	*15,147
14VC13	Orange	60	C	Bet. Dana Point & Doheny Park	0.4	5/29/46	C. B. Tuttle & Schmidt Bros. Contractors	Widen & Surface with P.M.S. & Widen 2 Bridges	206,390	20,284	226,674
1-7VVC23	Orange	60	C	Pacific Coast Highway at 3rd Ave. in South Laguna	---	4/26/50	Clinton Electric Co.	Signals & Lights	4,046	400	*4,446
7VC43	Orange	60	LgnB	In Laguna Beach on Coast Blvd., Bet. Diamond St. & Myrtle St.	---	6/30/47	Tri-Cities Elec. Service	Traffic Signals	22,277	3,238	25,515
7VC29	Orange	60	LgnB, C	Bet. Laguna Beach & Dana Point	4.9	1/30/47	Cox Bros. Const. Co.	Grade & Surface	240,110	28,048	268,158
0-7VC75-P	Orange	60	NptB	Rte. 43 to Irvine Ave.	0.6	5/13/48	Baker & Pollock	Surfacing	44,132	4,066	48,198
7VC51	Orange	60	NptB, B, A	Newport Beach & Vicinity	---	12/18/47	C. D. Draucker Co.	Signals & Lighting	76,997	2,447	79,444

DEPARTMENT OF PUBLIC WORKS

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost.	Const. engr.	Total
7VC18	Orange	60	SIB, A	Bet. Los Patos Ave. in Sunset Beach & Second St. in Seal Beach	2.3	4/30/46	Griffith Company	Widen Shldr's & Resurface.	\$44,921	\$4,005	\$48,926
7VC20	Oran. LA.	60, 163	SIB, B	See Los Angeles County							
7V135	Orange	171	A	13th St. to Hazard St.	9/ 3/48		Day Labor	Drainage Correction	14,196		14,196
7X38	Orange	171	A	13th St. to 15th St.	9/11/47		Day Labor	Side Drain	6,505	347	6,852
7V155	Orange	171	A	Garfield Ave. to S. of Jct. with Rte. 179	2/21/50		Day Labor	Subsealing	7,701		7,701
1-7VC151	Orange	171	A	Garfield Avenue to 21st Street	4/ 1/50		Sully-Miller Contracting Co.	Grade & Plant Mix Surface	132,203	16,000	*148,203
1-7VC138	Orange	171	B	Grand Ave., Artesia to A. T. & S. F. Underpass	0.4	12/14/49	Cox Bros. Const. Co.	Widen & Surface	18,622	2,800	*21,422
51-7VC21	Orange	171	B	At Orangethorpe Avenue	11/15/50		Electric & Machinery Service, Inc.	Signals & Lighting	9,320	1,000	*10,320
7X59	Orange	174, 171	A, B	At Intersection of Grand Ave. & Manchester Ave.		6/28/46	Day Labor	Widen Pav't & Channelize	9,864	1,132	10,996
7XC31	Oran. LA.	174	A, B	See Los Angeles County							
1-7VC148-F	Orange	174	A	Los Angeles Co. Line to 0.2 Mi. SE. of Euclid Ave.	5.0	3/29/50	Sully-Miller Contracting Co.	Grade & Plant Mix Surface	515,360	60,000	*575,360
1-7VC154	Orange	174	A	Artesia Ave. to Euclid Ave.		5/ 5/50	Clinton Electric Corp.	Signals & Lighting	36,084	3,800	*39,884
1-7VC149-F	Orange	174	A, Ana	0.2 Mi. Southeastery of Euclid Ave. to Rte. 2	2.9	3/31/50	Griffith Co.	Grade & A. C. Pave.	322,878	50,000	*372,878
51-7VC15	Orange	174	Ana, A	Lincoln Ave. to Los Angeles St.		8/22/50	Westates Electrical Const. Co.	Signals & Lighting	38,164	3,900	*42,064
7X85	Orange	175	B	Bet. Rte. 2 & Rte. 43	4.5	3/31/47	Day Labor	Repair Shldr's	5,825		5,825
0-7VC118	Orange	175	B	At Yorba Road	0.5	5/26/49	K. & H. Company	Grade & Surface	47,447	5,255	*52,702
14VLC4	Orange	176	A	Across Coyote Cr. W. of Brea		11/ 3/47	O. B. Pierson	Reinforced Concrete Bridge	25,916	5,583	31,499
1-7VC111	Orange	176	A	At Coyote Creek		4/20/49	Jas. R. Mathews Excavating Co.	Install Culvert	10,412	1,542	11,954
0-14VC73	Orange	178	A	Santa Ana River	0.7	10/29/48	Charles MacClosky Co.	Const. Bridge & Approach	296,780	22,483	319,263
7XC17	Orange	183	A	Bet. Verano St. & W. City Limits of Santa Ana	1.8	6/ 7/46	John J. Swigart Co.	Resurface with P. M. S. & Widen Shldr's	26,608	3,447	30,055
7V143	Orange	184	SA, A	Delhi Rd. to Newport Rd.	1.7	3/29/49	Day Labor	Resurfacing	38,909	1,964	40,873

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
7DC5-P	Orange	FAS 737		Los Angeles Co. Line to Manchester Ave.	3.1	8/12/49	Sully-Miller Contr. Co.	Grade & Surface	\$110,960	\$2,000	*\$112,960
7DC2	Orange	FAS 742		On Harbor Blvd., Bet. Wilson St. in Costa Mesa & Manchester Ave. S. of Anaheim.	11.2	12/31/46	Griffith Company	Widen & Surface	238,466	13,699	252,165
7DC4	Orange	FAS 749		Two Locations	3.8	7/29/48	Sully-Miller Contr. Co.	Grade & Surface	118,226	1,336	119,562
7VC52 7XC26	Ora, LA Ora, LA	Var Var		See Los Angeles County See Los Angeles County							
	Orange			Various Locations				Minor Contracts & D.L. Projects	75,954		75,954
3T51	Placer	3	A	Bet. 1.9 Mi. N. of Roseville & 1.0 Mi. S. of Lincoln	5.1	8/22/46	Day Labor	Construct Borders	17,742	387	18,128
1-14TC81	Placer	3	A, B	3.3 Mi. S. of Roseville to 0.9 Mi. S. of Sheridan		10/31/49	Fredrickson Bros.	R.C. Bridges & Approaches	117,286	22,000	*139,286
1-3TC66 1-3TC65	Placer Pla, Yub.	3 3	B B, A, B	At Sheridan N. of Lincoln to S. of Marysville	0.3 20.2	7/29/49 7/19/49	Rise Brothers, Inc. O'Connor Bros.	Grade & Surface Extend Drainage Facilities	30,783 43,841	3,500 4,400	*34,283 *48,241
0-14TC55	Placer	3	Rsv. A	In Roseville	3.3	10/19/48	Guy F. Atkinson Co.	Grade & Pave	1,328,457	148,000	*1,476,457
3TC34	Placer	17, 37	B, Aub	At Nevada St. & East St. Undercrossing		4/ 1/47	L. H. Leonardi Elec. Const. Co.	Lighting System	10,087	911	10,998
3TC27	Placer	17, 37	B, Aub, A	Bet. 0.1 Mi. W. of Nevada St. & 1 Mi. E. of Auburn	2.6	6/24/46	Fredrickson & Watson Const. Co.	Grade & Surf. with P.C.C. & P.M.S.	632,576	59,879	692,455
3TC33-F	Placer	17	C	Wise Canal to Rock Cr.	1.9	3/11/47	Fredrickson & Watson Const. Co.	Grade, Surface, & Underpass	241,158	28,600	*269,758
51-3TC15	Placer	17	C	At Deadman's Curve	0.2	4/ 2/51	Joe Chevreux	Grade & Plant Mix Surface	17,528	1,900	*19,428
3TC32	Placer	17	Aub, C	Bet. Rte. 37 in Auburn & Wise Canal	1.7	9/16/46	Fredrickson & Watson Const. Co.	Grade & Surface	186,350	18,139	204,489
3TMC14	Placer	17	Rsv	Bet. Jefferson St. & E. City Limits of Roseville	0.9	4/22/48	J. R. Reeves	Plant Mixed Surfacing	8,253		8,253
51-3TC4	Placer	37	A	1 Mi. E. of Auburn to 1 Mi. W. of Apple-gate	6.1	5/24/50	Fredrickson Bros.	Plant Mix Surface	330,092	30,000	*360,092

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-3TC60-F	Placer	37	A	1 Mi. E. of Auburn to 1 Mi. W. of Applegate.	6.1	5/20/49	United Concrete Pipe Corp., Ralph A. Bell, Westbrook & Pope.	Grade & Structures	\$1,177,158	\$107,500	\$1,284,658
3TU1	Pla, Nev.	37	C, D, E, F, B, C, D	Colfax to Truckee.		7/ 1/49	Day Labor	Parking Areas.	27,593		27,593
3TC50	Placer	37	Aub, A	Nevada St. to ½ Mi. E. of Auburn.	1.8	4/ 1/48	Fredrickson & Watson Const. Co.	Fence & Barrier Posts	12,872	985	13,857
14TC6	Placer	37	Aub	Over Tracks of S.P.R.R. in Auburn.		1/ 8/46	H. W. Ruby	Steel Beam Overcrossing	94,387	6,922	101,309
14TC4	Placer	37	Aub	East St. Undercrossing in Auburn.		1/ 3/46	H. W. Ruby	Steel Beam Undercrossing	56,712	5,993	62,705
14TC7	Placer	37	Aub	Walsh St. Undercrossing.		1/ 3/46	Wm. E. Thomas Const. Co.	R.C. Undercrossing	30,584	4,436	35,020
3WC9	Pla, Nev.	38	B, C, A	Bet. 4.7 Mi. W. of Tahoe City & Nevada County Line	8.5	6/28/46	Clements & Co.	Repair with P.M.S. & Seal Coat.	133,935	12,132	146,067
14WLC41	Pla, ED.	65	A, A	N. Fork American River	0.3	9/16/46	H. W. Ruby	Bridge & Approaches	250,236	16,697	266,933
3TU2	Placer	65	Aub	0.4 Mi. W. Auburn City Limits to R.R. Underpass	0.26	7/ 1/49	Day Labor	Grade & Surface.	22,014	1,600	*23,614
3DC17-P	Placer	FAS 767		N. Fork American River to 2.3 Mi. Easterly	2.3	9/15/49	J. P. Brennan & M. W. Brown	Grade	90,824	23,300	*114,124
3DC5	Placer	FAS 768, 769, 770		Loomis to Auburn & FAS Rte. 768 to Newcastle	11.9	8/ 7/47	H. Earl Parker, Inc.	Grading	138,611	16,912	155,523
	Placer			Various Locations.				Minor Contracts & D.I. Projects.	11,542		11,542
1-2TC37	Plumas	21	A	Rock Cr. to Belden	3.4	7/ 7/40	Granite Const. Co.	Grade & Surface	155,707	23,497	179,204
0-2TC26	Plumas	21	A	Bet. Rock Cr. & Belden	1.9	4/21/48	Pionbo Const. Co. & M & K Corp.	Grading	886,745	166,739	*1,053,484
2TC29	Plu, Sha, Tri.	21, 20	B, B, A	Near Keddie, Schilling, & Douglas City.		6/24/48	Liston Ehorn	Truck Scales	25,374	3,903	29,277

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost.	Const. engr.	Total
51-27C5	Plumas	21	D	At Quincy High School Line Change	0.4	6/ 5/50	Steele & Easton	Grade & Road Mix Surface	\$26,650	\$5,200	*\$31,850
51-27C6	Plu, Sha, Sis	21, 29, 3	Var	See Shasta County							
1-27C38	Plumas	29	A	Rte. 83 to 1.4 Mi. E. of Chester	4.4	7/20/49	Clements & Co.	Grade & Surface	146,569	18,950	165,519
147C14	Plumas	29	A	Across N. Fork of Feather River at Chester		8/ 9/46	C. C. Gildersleeve	Sidewalks on Bridge	6,288	179	6,467
27C20	Plu, Las	29	A, A	Bet. 0.3 Mi. W. & 0.8 Mi. E. of Plumas-Lassen County Line	1.1	4/21/47	Fredrickson & Watson Const. Co.	Grade & Surface	89,551	9,645	99,196
0-147C40	Plumas	83	A	Across Sulphur Cr.		4/19/48	Chittenden & Chittenden	Bridge & Approaches	51,802	8,559	60,361
14DC1	Plumas	FAS 523		At Hamilton Branch		5/ 9/45	Kiss Crane Co.	Steel Girder Bridge	69,653	7,875	77,528
2DC4	Plumas	FAS 523		Bet. Rte. 83 near Almanor & Plu-Las. County Line, 2 Mi. W. of Westwood	9.9	8/ 7/46	Fredrickson & Watson Const. Co.	Grade & Surface	366,487	37,070	403,557
	Plumas			Various Locations				Minor Contracts & D.L. Projects	50,206	5	50,211
8VC6	Riverside	19	A	Bet. Mira Loma & 2.5 Mi. W. of Riverside	5.9	12/14/45	Geo. Herz & Co.	Grading & Plant Mixed Surfacing	686,302	40,183	726,485
8VC11	Riverside	19	A	Bet. Mira Loma & 2.5 Mi. W. of Riverside	5.9	3/20/47	George Herz & Co.	Seal Coat	8,604	934	9,538
0-8VC41	Riverside	19	A	Mira Loma to 2.5 Mi. W. of Riverside		6/28/49	Covina Const. Co.	Grade & Surface	40,206	9,000	*49,206
8VC10	Riv, SBd	19	A, B	See San Bernardino County							
8VC12	Riv, SBd	19, 43, 9	A, A, A	See San Bernardino County							
1-8VVC3	Riverside	19	Riv	Pepper St. at 7th St.		8/18/49	Ed Seymour	Signals	10,832	1,500	*12,332
8VC23	Riverside	26	C	ECL of Banning to Rte. 187	10.5	5/27/48	Basich Bros. Const. Co. & Basich Bros.	Surfacing	117,015	10,896	180,911
14VC43	Riverside	26, 64	C, Q	NW. of Indio & W. of Indio		12/31/47	E. S. & N. S. Johnson	Redeck 5 Bridges	35,202	4,902	40,104
1-8VC32	Riverside	26	D	Garnet to Edom	10.4	4/ 1/49	R. P. Shea Const. Co.	Plant Mix Surfacing	132,043	14,000	*146,043
0-11VC27	Riverside	26	E	Edom to 2.9 Mi. N. of Indio	7.4	4/ 1/48	R. P. Shea Co.	Surfacing	78,430	8,399	86,829

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
51-14VC3	Riverside	26	G	At Almar Ditch	---	7/13/50	C. B. Tuttle Co.	RC Slab Bridge	\$32,526	\$6,000	*\$38,526
8VC9-P	Riverside	26	Ban, B	Bet. Midway & E. City Limits of Banning.	3.1	6/25/46	Herz Paving Co.	Repair with P.M.S. & Grade Shlds.	52,245	2,755	55,000
0-8VMC4-P	Riverside	26	Bau	Magnolia Ave. to Pennsylvania Ave.	0.6	9/ 8/48	Foster & McHarg.	Curbs & Gutters	10,442	1,515	11,957
52-8VC1	Riverside	26	Bau	W. City Limits to E. City Limits of Beaumont.	1.2	4/ 2/51	Match Bros.	Plant Mix Surface.	25,348	3,350	*28,698
1-8VC42-F	Riv, SBd.	26	Bau, A, B	See San Bernardino County	---	---	---	---	---	---	---
1-8VC45	Riv, Ora.	43	A, B	See Orange County	---	---	---	---	---	---	---
0-14VC51	Riverside	43	B	At Temesca Wash	0.5	4/ 1/48	Dinnitt & Taylor & K. B. Nicholas	Bridge & Approaches	168,546	16,979	185,525
1-8VC48	Riverside	43	Cor	W. City Limits to E. City Limits of Corona.	2.6	6/21/50	E. L. Yeager Co.	P.M.S. Lights, Signals	291,701	44,000	*335,701
51-8VC4-P	Riverside	43	Riv	At Van Buren Street	---	9/ 6/50	Paul R. Gardner	Signals & Lighting	11,729	1,000	*12,729
51-8VC7	Riv, SBd.	43	Riv, C, F	Russell Street to 0.1 Mi. N. of San Bernardino Co. Line	---	10/20/50	H. C. Warren	Lighting System	10,510	1,500	*12,010
1-8VC36	Riv, SBd.	43	Riv, C, F	Russell Street to San Bernardino Co. Line.	2.6	5/26/49	J. A. Payton	Grade & Plant Mix Surface	478,471	70,000	*548,471
1-11VC39	Riverside	64	B, D	Bet. Shavers Well & Desert Center & Bet. 4 Mi. W. Hopkins Well & Black Butte.	10.9	4/21/49	Hensler Const. Corp.	Road Mix Surfacing	65,976	6,172	72,148
11VC8	Riverside	64	C, D	Bet. 6 Mi. E. of Desert Center & Hopkins Well.	10.4	4/30/47	Arthur A. Johnson	Road Mix Surfacing & Seal Coat.	57,207	5,633	62,840
11XC15-P	Riverside	64, 146	E, A, B, C, D, E	Bet. 1.9 Mi. W. of Pallowalla & 3.9 Mi. W. of Blythe & Bet. 3.6 Mi. N. of Imp. Co. Line & 1.8 Mi. S. of S. Bd. Co. Line.	12.3	4/11/47	MacArthur & Son.	Repair with R.M.S.	50,319	3,021	53,340
0-11VC32-P	Riverside	64	E, Bly	4 Mi. W. of Blythe to Colorado River.	8.3	6/24/48	Basich Bros. Const. Co.	Base & Surfacing	230,954	17,809	248,763
11VC21-F	Riverside	64	E, Bly, F	4 Mi. W. of Blythe to Colorado River.	1.8	1/20/48	Arthur A. Johnson	Grade, B.S.T. & Structure	207,092	27,057	234,129
0-14VC78	Riverside	64	H	Sleepy Draw	---	2/ 3/49	John Strona	Bridge	39,580	3,936	33,516
14VC21	Riverside	64	H	Across Coachella Canal 5 Mi. E. of Indio.	---	11/14/46	F. Predenburg	R.C. Slab Bridge	37,483	3,429	40,912
14VC19	Riverside	64	H, B	Near Indio.	---	9/13/46	E. G. Perham	Repair Bridges	37,195	3,714	40,909
1-14VC94	Riverside	64	H	Smokey Gulch & Coachella Storm Drain.	---	9/23/49	K. B. Nicholas	Redeck One Bridge & Const. One Bridge.	94,188	9,365	103,553

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-11VC61	Riverside	64	H, I, B, C, D	Indio to Black Butte	21.4	6/22/50	R. P. Shea Co.	Road Mix Surface	\$86,547	\$15,500	*\$102,047
8VMC2	Riverside	64	Hem	State St. to E. City Limits	0.8	6/ 8/48	R. A. Erwin	Surfacing	12,120		12,120
1-8VC33	Riverside	64, 194	Hem	W. City Limits to State St. & Rte. 64 to N.C.L.	1.5	4/ 1/49	Geo. Herz & Co.	Surfacing	18,152	1,029	19,181
8VC27	Riverside	77	A	San Diego Co. Line to N. of Temecula	5.9	6/24/48	Morrison - Knudsen Co., Inc.	Grade, Surface & Const. Bridges	698,512	81,067	*779,579
1-8VC37	Riv, SB4	77	C, A	See San Bernardino County							
0-14VC86-Y	Riverside	77	E	W. of Corona		5/25/49	R. M. Price Co. & O. B. Pierson	Structures	480,020	46,600	*526,620
1-8VC39	Riverside	77, 192	E, A, A	Rte. 43 to Pine Avenue	6.5	7/ 7/49	A. Telchert & Son, Inc.	Grade, Surface & Structures	623,617	92,000	*715,617
11V52	Riv, S.D.	77	F, G, A	See San Diego County							
11X30	Riv, S.D.	77	F, F, G	See San Diego County							
11XC13	Riverside	146	A, B, C, D, E	Bet. 1.3 Mi. N. of Imp. Co. Line & 0.5 Mi. S. of S. Bd. Co. Line	15.4	8/21/46	Arthur A. Johnson	Repair with Imp. Base Matl. & R.M.S.	54,272	5,629	59,901
0-14VC88	Riverside	146	A, B, C	3.3 Mi. N. Imp. Co. Line to 4 Mi. N. Blythe		6/18/49	E. G. Perham	Const. Bridges	47,600	7,442	55,042
11VC28	Riverside	187	B, F	SE. of Mecca to S. of Thermal	6.8	5/21/48	Hausler Const. Co.	Grade, B&T, & Structures	409,443	34,420	443,863
0-8VC22	Riverside	187	G	0.1 Mi. to 0.6 Mi. E. of Cathedral City	0.5	5/13/48	Westbrook & Pope	Grade & Surface	54,375	4,574	58,949
8XC13	Riverside	187	G	Near Cathedral City		8/29/47	R. P. Shea Company	Construct Dips	6,491	1,369	7,860
8VC16	Riverside	187	D	White Water Point to ½ Mi. N. of Palm Springs	4.1	12/11/47	Peter Kiewit Sons' Co.	Grade, Surface, & Structure	357,164	41,590	398,754
51-8VC9	Riverside	187	E	7.8 Mi. to 8.2 Mi. N. of Rte. 26	0.4	11/27/50	R. P. Shea Co.	Grade & Bit. Surf. Treat.	32,636	6,200	*38,836
1-8VC34	Riverside	187	PSp	In Palm Springs	2.5	5/10/49	R. P. Shea Co.	Plant Mixed Surfacing	23,214	1,723	24,937
0-8VC26	Riverside	193	B	Bellgrave Ave. to Rte. 19	3.0	6/10/48	R. A. Erwin	Surfacing	55,228	5,183	60,411
8X5	Riverside	194	A	Bet. Sage & Jct. of Rte. 78		5/20/46	Day Labor	Grading, Surfacing & Culverts	14,472		14,472

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost.	Const. engr.	Total
0-14VC70	Riverside	194	C	Potrero Creek	---	9/29/48	H. R. Breeden	Bridge & Approaches	\$15,090	\$3,380	\$18,470
8DC5	Riv, Sbd	FAS 695	---	On Archibald Ave., Bet. Cloverdale Ave. & Valley Blvd.	6.0	9/ 4/47	Peter Kiewit Sons' Co.	Grade, IB & P.M.S.	190,421	17,609	208,030
8DC3	Riverside	FAS 699	---	On Jurupa Ave., Bet. Mira Loma & Sunnyslope	5.3	7/ 8/47	Peter Kiewit Sons' Co.	Grade & P.M.S.	111,807	11,499	123,306
8DC1	Riverside	FAS 706	---	On "B" St. & Crestmore Rd.	2.9	3/12/47	E. L. Yeager	Grade & Surface	117,067	9,902	126,969
8DC13-P	Riverside	FAS 718	---	Nuevo to Lakeview	2.9	11/14/50	Foster & McHarg	Grade & Road Mix Surface	41,645	4,500	*46,145
14DC29	Riverside	FAS 720	---	At Santa Gertrudis Cr.	0.4	10/ 9/47	Foster & McHarg	Reinforced Concrete Bridge	37,335	1,409	38,744
8DC9	Riverside	FAS 720	---	Benton Road to Winchester	8.7	7/29/49	Geo. Herz & Co.	Grade & Road Mix Surface	305,272	35,000	*340,272
51-14DC7-P	Riverside	FAS 734	---	Across Coachella Valley Storm Drain	---	2/20/51	F. Fredenburg	RC Slab Bridge	64,782	5,000	*69,782
11DC6	Riverside	FAS 735	---	Blythe to Palo Verde Mesa	5.8	11/14/49	Nathan A. Moore	Grade, Bit. Surf. Treat & Bridge	131,163	12,500	*143,663
11DC2	Riverside	FAS 1162	---	On Jackson St.	5.0	10/29/48	Foster & McHarg	Grade & B.S.T.	101,229	6,000	107,229
---	Riverside	---	---	Various Locations	---	---	---	Minor Contracts & D.L. Projects	46,679	22	46,701
3TC21	Sacramento	3	B	Bet. North Sacramento Viaduct & 0.5 Mi. E. of Ben Ali	4.1	12/20/45	Guy F. Atkinson Co.	Grade, P.C.C. Paving & Structures	1,758,709	150,548	1,909,257
0-3TC55	Sacramento	3	B	North Sacramento Freeway	3.7	12/ 3/48	Fred Kaus	Barrel Paving	8,680	1,700	*10,380
3756	Sacramento	3	B	North Sacramento Freeway	---	8/ 5/46	Day Labor	Signs & Stripe	8,021	---	8,021
3788	Sacramento	3	B	North Sacramento Freeway	0.3	8/ 4/48	Day Labor	Curbs	3,375	1,065	6,380
0-3TC56	Sacramento	3	B	North Sacramento Off-Ramp	0.2	12/ 4/48	McGillivray Const. Co.	Grade & Surface	11,783	2,150	*13,933
3TC43	Sacramento	3	B	North Sacramento Viaduct to Howe Ave.	---	11/13/47	Luppen & Hawley, Inc.	Lighting	30,372	1,807	32,179
3TC46	Sacramento	3	B	North Sacramento Viaduct 0.5 Mi. E. Ben Ali	---	2/ 4/48	Master Plumbing & Heating Co., Inc.	Landscape	79,029	8,050	*87,079

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-3TTC4	Sacramento	3	B	E. End of North Sacramento Viaduct	---	11/29/49	L. H. Leonardi Electric Const. Co.	Illuminated Sign Bridge	\$4,146	\$550	\$4,696
51-3TTC13	Sacramento	3	B	Sacramento City Limits to American River	0.3	11/29/50	J. R. Reeves	Widen & P.M.S.	15,996	4,050	\$20,046
3T96	Sacramento	3	B	North Sacramento Viaduct to 0.5 Mi. E. of Ben Ali	---	3/1/50	Day Labor	Guard rail, Guide posts, Reflectors, & Signs	5,225	---	\$5,225
3T30	Sacramento	3	NSac	Bet. Birch Ave. & El Camino Ave.	---	8/27/46	R. Flatland	Traffic Signals	21,788	2,531	24,319
3T34P	Sacramento	4	B, Sac	Stockton Blvd. at 14th Ave.	---	12/17/47	A. Teichert & Son, Inc.	Widening & Signals	24,473	3,454	27,927
1-3TTC5	Sacramento	4	Sac	Stockton Boulevard at Fruitridge	---	12/19/49	A. Teichert & Son, Inc.	Signals, Lights, Improve Inters.	23,408	1,800	\$25,208
3T99	Sacramento	4, 3	Sac, B	Broadway to N. 12th Street	---	8/30/50	Day Labor	Signs, Stripe, Signals, & Channelization	6,027	---	\$6,027
51-3TTC9	Sacramento	4, 3	Sac, B	Broadway to N. 12th Street	2.3	7/17/50	Brighton Sand & Gravel Co.	Plant Mix Surface	38,989	3,400	\$42,389
51-3TTC14	Sacramento	6	Sac	10th Street to 13th Street	0.24	1/30/51	J. R. Reeves	Curbs & Gutters	6,227	1,150	\$7,377
51-14TTC22	Sac, Yolo	6	Sac, C	See Yolo County	---	---	---	---	---	---	---
COFC3	Sac, C.C.	11	A, C	See Contra Costa County	---	---	---	---	---	---	---
3TCC6	Sacramento	11	B, Fol	Bet. 12 Mi. E. of Sacramento & Riley St. in Folsom	5.4	5/12/47	Harns Bros.	Surfacing with P.M.S.	55,606	4,623	60,229
0-3TCC4	Sacramento	11	B, A	W. of Nimbus to E. of White Rock	7.3	6/18/48	Geo. Pollock Co.	Grade, Surface, & Structures	688,418	66,000	\$754,418
10WC13	Sacramento	11	C	Bet. Antioch Br. & Enmaton	3.4	6/11/46	Sheldon Oil Co.	Repair with Imp. Bor. & Bit. Surf. Treat.	39,557	3,979	43,536
14WLC53	Sacramento	11	C	At Three Mile Slough	---	6/20/47	Johnson Western Co.	Bridge Substructure	236,677	18,643	255,320
10TCC26	Sacramento	11	C	Three Mile Slough	1.2	1/26/48	Sheldon Oil Co.	Grade & Surface Approaches	66,328	8,351	74,682
14TCC32	Sacramento	11	C	Three Mile Slough	---	11/1/54	Judson-Pacific-Murphy Corp.	Steel Bridge	554,902	34,998	\$589,900
COFC-5	Sacramento	11	C	Across San Joaquin River	---	7/26/50	H. F. Lauritzen	Repair Bridge Fenders	27,094	---	\$27,094
10W55	Sacramento	11	G	Bet. Rio Vista Br. & 2.0 Mi. Northerly	1.9	5/7/47	Day Labor	Resurfacing	10,864	595	11,459
3TCC39	Sacramento	11	Fol, A	Bet. Sutter St. in Folsom & 3.7 Mi. E.	4.2	7/11/47	Brighton Sand & Gravel Co.	Plant Mixed Surfacing	37,884	2,338	40,222
14WLC47	Sac, Sol.	53	A, C	See Solano County	---	---	---	---	---	---	---
10W56	Sacramento	53	D	Bet. Isleton & Georgiana Slough	1.7	5/7/47	Day Labor	Resurfacing	11,495	590	\$12,085

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-3TC52	Sacramento	54	B	At Sloughhouse	1.6	5/11/48	Brighton Sand & Gravel Co. & Lew Jones Const. Co., Inc.	Grade, Surface & 3 Bridges	\$209,670	\$24,510	*\$234,170
1-3TTC1	Sacramento	98	A	Intersection Fulton & Marconi Aves.		8/17/49	L. H. Leonardi Electric Const. Co.	Signals & Lights	12,817	1,200	*14,017
1-3TTC2	Sacramento	98	A	On Fair Oaks Blvd. at Howe Ave.	0.4	10/ 4/49	A. Teichert & Son, Inc.	Grade, Surface, Signals & Lights	40,143	4,350	*44,493
14DC5	Sacramento	FAS 537		Across Arcade Cr. on Madison Ave.		3/ 5/47	Wm. E. Thomas Const. Co.	R.C. Slab Bridge	18,706	2,185	20,891
14DC4	Sacramento	FAS 900		Across Bear Slough		10/ 3/46	M. A. Jenkins	R.C. Slab Bridge	67,604	3,897	71,501
3DC3	Sacramento	FAS 929		On Marconi Ave., Bet. Howe Ave. & Fair Oaks Blvd.	4.7	6/30/47	McGillivray Const. Co.	Grade & Plant Mixed Surfacing	111,063	9,245	120,308
14DC6	Sacramento	FAS 933		Across Laguna Cr.		10/15/46	Bati Rocca	R.C. Slab Bridge	34,095	2,295	36,390
3DC1	Sacramento	FAS 937		On Howe Ave., Bet. Fair Oaks Blvd. & Arden Way	1.6	3/17/47	Westbrook & Pope	Grade, Widen, & Surface	50,170	5,852	56,022
3DC6	Sacramento	FAS 937		Arden Way to Rte. 3	1.9	8/13/47	George E. France	Grade, Base & Armor Coat	65,747	5,507	71,254
0-3TMC15	Sacramento	Var	Sac	In Sacramento	6.9	9/27/48	A. Teichert & Son, Inc.	Surfacing	110,062		110,062
	Sacramento			Various Locations				Minor Contracts & D.L. Projects	33,598	293	33,891
5TC6	San Benito	2	A	Bet. Prunedale Jct. & SCL Co. Line	1.6	6/11/46	Granite Const. Co.	Repair with Cement Treat. & P. M.S.	57,435	3,111	60,546
5TC7	SBt, Mon	2	B, J	See Monterey County							
5TC9	San Benito	22	C	Bet. Rte. 2 & San Juan Bautista	2.2	6/26/47	A. Teichert & Son, Inc.	Repair with Imp. Bor. & Bit. Surf.	35,565	2,415	37,980
0-14TC38	SBt, SCR	67	A, A	At Pajaro River	0.9	4/ 1/48	Dan Caputo & Edward Keeble	Const. Bridge & Approaches	184,992	23,877	208,869
5W10	San Benito	119	C	At Late Cr.		3/27/47	Day Labor	Replace Bridge	5,778		5,778
5DW1	San Benito	119	E	Bet. 2.5 Mi. S. of Hollister & Hollister	2.6	4/ 4/47	A. Teichert & Son, Inc.	Grade & Plant Mixed Surfacing	136,987	16,015	153,002
0-5TC13	San Benito	119	E	Tres Pinos to 0.25 Mi. North	0.3	6/22/49	Granite Const. Co.	Grade & Surface	29,362	5,698	35,060

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
14DC48	San Benito	FAS 670		North of Hollister		4/ 1/49	Wm. E. Thomas Const. Co.	Construct 6 Bridges	\$27,290	\$846	\$28,136
14DC66-P	San Benito	FAS 670		At Tecuiscuita Slough Overflow & on Fairview Road		4/ 7/50	Herbert H. Anderson	Culverts	2,607	454	3,061
	San Benito			Various Locations				Minor Contracts & D.L. Projects	14,427		14,427
14VC31	San Bernardino	9, 190	A, A	Across Day Canyon Flood Channel about 5 & 7 Mi. E. of Upland		5/16/47	George W. Peterson	Two Bridges	73,669	9,015	82,684
8VC12	Sbd. Riv.	9, 19, 43	A, A, A	Bet. E. City Limits of Upland & 0.6 Mi. E. of Haven Ave., Bet. 2.4 Mi. & 0.3 Mi. W. of Riverside & Bet. Panorama Point & Squirrel Inn	10.7	5/ 5/47	Matich Bros.	Plant Mixed Surfacing & Seal Coat	111,027	6,537	117,564
51-8VC10	San Bernardino	9	A	At San Bernardino Road	0.3	1/11/51	Boddum & Peterson	Grade, Surface & Lighting	19,890	3,225	*23,115
51-8VC6	San Bernardino	9	B, Ria	At Sierra Ave. & at Riverside Ave.		10/31/50	Westates Electrical Const. Co.	Signals & Lighting	31,419	2,000	*33,419
0-8VC20	San Bernardino	9	D, Upl, A, C	Los Angeles County Line to San Bernardino	9.0	4/15/48	Matich Bros.	Surface and Seal Coat	147,972	8,562	156,534
1-8VVC4-P	San Bernardino	9, 31	Sbd	Mt. Vernon Ave. at 5th, 6th, 7th, & Base-line Sts.		10/15/49	C. D. Draucker, Inc.	Signals & Lighting	18,008	1,500	*19,508
8VC19	San Bernardino	9, 192	Upl	Foothill Blvd. & Euclid Ave.		4/ 1/48	Tri-Cities Elec. Serv.	Signals & Channelization	18,840	1,663	20,503
8VC14-PP	San Bernardino	19	A, Ont, B	Los Angeles County Line to 0.6 Mi. E. of Ontario	5.7	10/14/47	Morrison-Knaudsen Co.	Grade & Surface	905,990	79,908	985,899
8VC10	Sbd, Riv.	19	B, A	Bet. 0.5 Mi. E. of Ontario & Mira Loma	5.8	9/23/46	Peter Kiewit Sons' Co.	Grade & Surface	420,908	44,108	465,016
8VC15	San Bernardino	19, 192	Ont	Euclid Ave. & Rte. 19		10/29/47	Paul G. Garduer	Signals	12,969	1,186	14,155
14VC12	San Bernardino	26	A	Across Mission Storm Drain		3/ 1/46	Carl Broome	Widen Bridge	11,391	2,831	14,222
8VC24	San Bernardino	26	A	On Colton Ave.		6/ 4/48	Eis-Hokin & Galvan	Signals	19,029	1,506	20,535

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost.	Const. engr.	Total
1-8VVC2-P	San Bernardino	26, 43	A, Sbd	Intersection at "E" St., Colton Ave. & Mill St. at S.C.L.	---	8/12/49	Westates Electrical Const. Co.	Widening, Signals & Lighting	\$23,838	\$2,000	*\$25,838
1-8VC42-F	SBd, Riv	26	B, A, Bau	2.3 Mi. E. of Redlands to Beaumont	9.6	11/17/49	Fredericksen & Kasler	Grade, Surface, & Structures	1,232,297	647,669	*1,879,966
1-8VVC5	San Bernardino	26	C	Intersection of Holt & Central Avenues	---	2/10/50	Clinton Electric Corp.	Signals & Lighting	8,509	1,000	*9,509
8XC1	San Bernardino	26	D	Bet. Etiwanda Ave. & Mulberry Ave.	0.9	6/4/47	George Herz & Co.	Grade, Pav. & Structures	396,376	34,634	431,010
8VC21	San Bernardino	26	D	0.7 Mi. W. of Colton	0.7	4/22/48	R. A. Erwin	P.M.S. & P.C.C. Pav.	5,227	1,324	6,551
8XC6	San Bernardino	26	D	Bet. Vineyard Ave. & Etiwanda Ave.	5.7	3/29/46	Matich Bros.	Grading, P.C.C. Paving & Bridges	497,645	41,483	539,128
8XC5	San Bernardino	26	D, Ria	Bet. Mulberry St. & Colton	9.8	12/28/45	Griffith Company	Grading, P.C.C. Paving & Overcrossing	1,452,014	69,764	1,521,778
8X12	San Bernardino	26	D, Ria	Kaiser Springs to Colton	---	3/27/47	Day Labor	Landscaping	14,990	---	14,990
8V32	San Bernardino	26	E, A, Rld	E St. to State St.	7.2	2/28/49	Day Labor	Signs & Stripe	6,919	---	6,919
8VC17F	San Bernardino	26	E, A, Rld	E St. to State St. in Redlands	7.2	2/20/48	Geo. Herz & Co.	Grade, Pav. & Bridge	778,309	72,661	850,970
1-8VC37	SBd, Riv	26, 77	E, A, Rld, C, A	Various Locations	23.4	6/9/49	G. & H. Paving Co.	Seal Coat	31,264	2,216	33,480
0-8VMC3	San Bernardino	26	Ont	Benson Ave. to San Antonio Ave.	1.2	7/9/48	Matich Bros.	Surfacing	51,552	---	51,552
8XMC1	San Bernardino	26	Ont	On "A" St.	---	6/19/47	Paul Gardner	Traffic Signals	24,743	---	24,743
51-8VC1	San Bernardino	26	Ont	San Antonio Ave. to Corona St.	2.7	4/1/50	George Herz & Co.	Plant Mix Surface	40,477	6,300	*46,777
8VC7	San Bernardino	26	Rdl	Bet. State St. & E. City Limits	2.8	12/21/45	Matich Bros.	Grading & P.C.C. Paving	317,522	22,126	339,648
8VC25	San Bernardino	31	B	Cajon Pass Hwy. near Blue Cut	---	6/10/48	Matich Bros.	Truck Scales	12,107	397	12,504
8VC8	San Bernardino	31	D	Bet. Victorville & Ora Grande Underpass	4.7	6/11/46	Geo. Herz & Co.	Repair with P.M.S.	41,131	2,673	43,804
14VC56	San Bernardino	31	H, J, K, L	28 to 70 Mi. E. of Barstow	---	5/28/48	Thomas Const. Co.	Redeek 13 Bridges	78,236	11,159	89,395
1-8VC46	San Bernardino	31	H, J	Manix to Cronese Lake	16.1	4/29/50	Basich Bros. Construction Co. & N. L. & R. L. Basich	Widen & Plant Mix Surface	218,514	23,600	*242,114
8V8	San Bernardino	31	J	Bet. Field & Summit	---	7/6/46	Day Labor	Experimental Blanket	6,951	---	6,951
1-14VC92	San Bernardino	31	K, L, N	6 Mi. W. of Baker to Mountain Pass	---	9/15/49	E. L. Thorsten	Redeek 15 Bridges	65,575	7,587	73,162

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-14VC68	San Bernardino	31	N, P	W. of Mountain Pass to S. of Nevada State Line.....	---	9/18/48	Thomas Const. Co.....	Redeck 6 Bridges.....	\$38,808	\$7,956	\$46,764
0-8VC28	San Bernardino	31	Q, SBd	Grant Ave. to Highland Ave.....	1.8	8/23/48	Geo. Herz & Co.....	Surfacing.....	191,691	16,729	208,420
51-8VC2	San Bernardino	31, 58	Bsw, G	Through Barstow & from Main St. to North Jct. with Rte. 58.....	3.4	4/ 2/51	Peter Kiewit Sons' Co.....	Plant Mix Surface.....	68,904	5,550	*74,454
0-8VC30	San Bernardino	31	SBd	Mt. Vernon Ave. at Rialto Ave.....	---	8/23/48	Ed Seymour.....	Signals & Lighting.....	10,987	679	11,666
8XC9	San Bernardino	43	A	Bet. 8.6 Mi. & 11.7 Mi. N. of San Bernardino.....	0.4	10/ 4/46	Geo. Herz & Co.....	Widen & Surface with P.M.S.....	48,831	2,662	51,493
1-8VC47-P	San Bernardino	43, FAS 925	A, B	Jct. with Rte. 189 & Lake Gregory Road, at Squirrel Inn.....	0.3	6/13/50	Ken Lowe.....	Grade & Plant Mix Surface.....	59,684	7,440	*67,124
8XC8	San Bernardino	43	B, C	Bet. Squirrel Inn & Big Bear Dam.....	13.8	6/28/46	R. R. Hensler.....	Road Mixed Surfacing & Seal Coat.....	99,108	11,021	110,129
51-8VC7	San Bernardino	43	C, F, Riv	See Riverside County	---	---	---	---	---	---	---
1-8VC36	San Bernardino	43	C, F, Riv	See Riverside County	---	---	---	---	---	---	---
8XC10	San Bernardino	43	L	Bet. 1 Mi. E. of Victorville & Victorville.....	1.4	3/6/47	Matich Bros.....	Grade & Surface.....	101,036	8,247	109,283
1-14VC91	San Bernardino	58	K, L	Amboy to Needles.....	---	8/25/49	E. S. & N. S. Johnson.....	Redeck 18 Bridges.....	89,951	8,963	98,914
14VC50	San Bernardino	58	L	Across Teviot Cr.....	---	4/ 1/48	L. H. Mulherson.....	R.C. Bridge.....	16,880	3,130	20,010
0-14VC69	San Bernardino	58	N	4.0 to 0.5 Mi. W. of Java.....	---	9/29/48	Covina Const. Co.....	Redeck 6 Bridges.....	62,270	7,030	69,300
0-8VMC5-P	San Bernardino	58	N, Ned	"R." St. to Walnut St.....	0.4	5/ 6/49	Ken Lowe.....	Grade & Surface.....	10,890	---	10,890
8VLC1	San Bernardino	58	P	Bet. 11 Mi. E. of Needles & Red Rock Bridge.....	2.9	3/13/47	Arthur A. Johnson.....	Grade & Surface.....	59,612	4,901	64,513
1-8VC40	San Bernardino	59	C	0.9 Mi. to 3.8 Mi. E. of Rte. 31.....	2.9	6/22/49	Herz Paving Co.....	Surface.....	9,606	1,501	11,107
51-8VC2	San Bernardino	190	B	0.1 Mi. W. of Riverside Ave. to 0.1 Mi. W. of Cajon Creek.....	1.0	4/ 1/50	R. A. Erwin.....	Grade & Plant Mix Surface.....	49,444	8,500	*57,944
0-8VC29	San Bernardino	190	C	E. Base Line Ave. to Orange St.....	1.6	9/24/48	Matich Bros. & E. L. Yeager.....	Grade, Surface & Structures.....	392,491	29,702	422,193

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
14XL7	San Bernardino	190	D	At Mill Cr.	---	6/21/46	Bent Construction	Bridge & Approaches	\$97,666	\$11,107	\$108,773
1-8VC38	San Bernardino	190	G	Erwin Lake to 1 Mi. E. Rte. 43	3.0	6/18/49	Geo. Herz & Co.	Bituminous Surface Treatment.	19,214	2,790	22,004
51-8VC3	San Bernardino	190	Rld	N. City Limits of Redlands to Rte. 26 & Orange St. to E. City Limits	4.4	4/28/50	Geo. Herz & Co.	Plant Mix Surface	31,129	4,775	*35,904
51-8VC11	San Bernardino	190	SBd	At "I" St. & Highland Ave.	---	2/ 5/51	Geo. Herz & Co.	Drainage Improvement	9,886	1,100	*10,986
1-8VC43	San Bernardino	190	SBd	"E" St. to E. City Limits of San Bernardino	1.8	3/31/50	Geo. Herz & Co.	Widen & Plant Mix Surface	123,282	20,500	*143,782
1-8VC49	San Bernardino	190	SBd	Waterman Ave. to E. City Limits of San Bernardino	0.9	6/28/50	Geo. Herz & Co.	Surface, Curbs, & Gutters	21,072	3,300	*24,372
51-8VC5	San Bernardino	192	A, Ont	0.3 Mi. S. of the S. City Limits of Ontario to Dessau St.	1.4	9/12/50	Cox Bros. Construction Co.	Grade & Plant Mix Surface	24,771	5,000	*29,771
1-8VC35	San Bernardino	192	Upl	On Euclid Ave.	1.1	4/ 7/49	Match Bros.	Resurfacing	9,436	887	10,323
8X10	San Bernardino	207	A	Highland Ave. to City Creek Bridge	---	2/ 9/48	Day Labor	Erosion Control	4,909	---	4,909
8XC14F	San Bernardino	207	A	City Creek Bridge to Plunge Creek	4.3	9/30/47	Westbrook & Pope	Grade, Surface, & Bridge	773,643	85,615	863,698
8XC7	San Bernardino	207	A	Bet. Highland Ave. & City Cr. Bridge	3.2	5/16/46	Denni Investment Corp.	Grading, P.M.S., & Const. Br.	693,918	82,321	776,239
0-8VC18	San Bernardino	207	A	0.7 Mi. E. of Plunge Cr. to Long Point	1.8	4/ 1/48	Claude Fisher Co., Ltd.	Grade & Surface	736,756	77,928	814,684
8V35	San Bernardino	207	A	0.7 Mi. E. of Plunge Cr. to Long Point	1.8	9/13/48	& L. R. & R. S. Crow Day Labor	Signs & Stripe	5,350	---	5,350
51-9VC8	San Bernardino	212	A, B	Kern Co. Line to 5.5 Mi. E. of Salt Wells	14.8	6/14/50	Oilfields Trucking Co. & Phoenix Construction Co., Inc.	Grade & Road Mix Surface	122,756	16,800	*139,556
51-8DC1	San Bernardino	FAS 692	---	Foothill Blvd. to Phillips Blvd.	4.1	9/12/50	Hess Const. Co., Inc.	Grade & Plant Mixed Surfacing	181,983	2,500	*184,483
8DC5	SBd, Riv	FAS 695	---	See Riverside County	---	---	---	---	---	---	---
8DC7	San Bernardino	FAS 698	---	Valley Blvd. to Foothill Blvd.	2.6	8/ 9/48	Match Bros.	Grade & Surface	141,142	11,457	152,599
8DC4	San Bernardino	FAS 706	---	Bet. Riverside Ave. & Colton	2.1	8/ 7/47	T. M. Page	Grade & Plant Mixed Surfacing	53,350	6,047	59,397

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
8DC6	San Bernardino	FAS 711		Waterman Ave. to 0.2 Mi. E. of City Cr.	4.5	3/26/48	E. L. Yeager	Grade, Surface & Bridge	\$229,884	\$23,723	\$253,607
8DC2	San Bernardino	FAS 712		On Waterman Ave., Bet. Riverside-Redlands Rd. & Mill St.	2.7	8/ 8/47	Griffith Company	Grade, Surface, & 2 Bridges	380,790	15,451	396,241
8DC8	San Bernardino	FAS 714		Pigeon Pass Rd.	8.4	1/ 7/49	Basich Bros. Const. Co. & Basich Bros.	Grade & Surface	433,866	47,300	*481,166
8DC10-P	San Bernardino	FAS 925		Rte. 43 to Huston Flat	2.2	8/13/49	Spicer Co.	Grade & Bit. Surf. Treat.	217,993	3,000	*220,993
	San Bernardino			Various Locations				Minor Contracts & D.L. Projects	71,657		71,657
11VC12	San Diego	2	A	Bet. 9th St. & Luneta Dr. in Del Mar	0.6	9/13/46	V. R. Dennis Const. Co.	Widen with A.C.&P.M.S. Shldrs.	21,332	3,972	25,304
11VC16	San Diego	2, 12	A, B, ECJ	In Del Mar, Solana Beach, Encinitas, Carlsbad, & El Cajon		6/30/47	Tri-Cities Elec. Service	Traffic Signals & Lighting	54,570	3,872	58,442
1-11VC57	San Diego	2	A, B, On, D	Del Mar to San Onofre	11.2	4/14/50	Griffith Co.	Plant Mix Surface	184,080	25,000	*209,080
11VC9	San Diego	2	B, C, D	Bet. Leucadia & San Mateo Cr.	6.2	5/29/46	N. M. Ball Sons	Repair with Imp. Base Mat. & P.M.S.	55,573	3,635	59,208
1-11VC45	San Diego	2	B, C	Bet. San Marcos Cr. & Carlsbad & Bet. Oceanside & Las Flores	4.3	5/13/49	R. P. Shea Co.	Surface	59,830	7,634	67,464
11VC11	San Diego	2	C	At Main Entrance to Camp Pendleton		7/22/46	Tri-Cities Elec. Service	Traffic Signal System	5,490	112	5,602
14GVC1	San Diego	2	C	Over A.T. & S.F. Ry. 1 Mi. N. of Oceanside		12/28/45	Fred D. Kyle	Steel Overcrossing	85,806	12,168	97,974
11VC5	SD, Ora.	2	D, SCle	Bet. Las Flores Cr. & San Clemente	9.5	9/20/45	N. M. Ball Sons	Grade & P.C.C. & A.C. Paving	678,642	59,617	738,259
14VC6	San Diego	2	D	Across San Mateo Cr. about 18 Mi. N. of Oceanside		8/24/45	Oberg Bros.	R.C. Girder Bridge	140,199	14,629	154,828
51-14VC1	San Diego	2	G, Chv	At Main St. & at "H" St.		6/ 5/50	Charles MacClosky Co.	RC Bridges & Approaches	147,973	22,700	*170,673
11X27	San Diego	2	F	At Border Airport Curve, 2.5 Mi. N. of San Ysidro		5/ 3/46	Day Labor	Superelevate Curve	5,195	125	5,320
11X28	San Diego	2	F	Bet. 1.5 Mi. N. of San Ysidro & 2 Mi. S. of Olney	1.0	6/11/46	Day Labor	Experimental Surfacing	14,089	655	14,744

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
11XC11	San Diego	2, 199, 12	F. A. B, ECj	Bet. San Ysidro & Chula Vista; Bet. Rte. 2 & Imperial Beach; & Bet. Grossmont & El Cajon	9.3	5/29/46	R. E. Hazard Contr. Co.	Repair with Imp. Base Matl. & P.M.S.	\$111,306	\$5,541	\$116,847
11XC20	San Diego	2	ChV	Bet. S. City Limits & N. City Limits of Chula Vista	2.3	7/31/47	R. E. Hazard Contr. Co.	Plant Mixed Surfacing	50,512	2,294	52,806
1-11VVC2-P	San Diego	2	ChV, NatC	National Ave. at "E" St. & 18th St.	---	8/29/49	Tri-Cities Elec. Service	Signals & Striping	19,250	419	19,669
51-11VC6	San Diego	2	NatC	At 8th Street	---	10/18/50	California Electric Works	Signals & Lighting	9,883	1,200	*11,083
1-11VC60	San Diego	2	NatC	16th St. to 7th St. Channel	0.7	5/11/50	R. E. Hazard Contracting Co.	Grade & Plant Mix Surface	122,623	18,000	*140,623
11V57	San Diego	2	NatC	7th St. to 16th St.	---	4/ 5/50	Day Labor	Detours	3,458	---	3,458
11V16	S.D., Ora.	2	Oen, C, D, SCle	Oceanside to San Clemente	---	3/25/46	Day Labor	Signs & Stripe	7,344	---	7,344
11VC7	San Diego	2	Oen, C	Bet. San Luis Rey River & 0.2 Mi. N. of Aliso Cr.	4.9	12/ 7/45	Basich Bros. Const. Co. & Basich Bros.	Grading & P.C.C. Paving & Resurfacing Portions with A.C. Signals	600,096	64,861	664,957
11VC29-P	San Diego	2	Oen	Hill St. & Vista Way	---	6/10/48	Tri-Cities Elec. Service	Signals	8,881	876	9,757
11VC23-P	San Diego	2	Oen	Wisconsin Ave, 2d St., 3d St., & 6th St.	---	2/20/48	California Elec. Works	Signals & Lighting	23,965	425	24,390
51-11VC7-P	San Diego	2	Oen	At Hill Street	---	12/20/50	California Electric Works	Signals & Lighting	10,317	1,300	*11,617
14VMC1	San Diego	2	S.D	At Switzer Canyon Overpass near 10th St.	---	3/10/47	C. B. Tuttle Co.	Rodeck Overpass	47,143	---	47,143
11VMC11	San Diego	2	S.D	On Pacific Hwy. at Balboa Ave.	0.12	3/ 5/48	R. E. Hazard Contr. Co.	Grade, Pave, & Channelization	21,612	---	21,612
11VMC7	San Diego	2	S.D	From Teolote Cr. to Balboa Ave.	2.5	12/ 8/47	R. E. Hazard Contr. Co.	Grade, I.B., & P.M.S.	45,593	---	45,593
11VMC32-P	San Diego	2	S.D	Pacific Hwy. at Balboa Ave.	---	4/ 6/48	California Elec. Works	Signals & Lighting	11,287	---	11,287
11VMC10-P	San Diego	2	S.D	5th Ave. at Harbor Dr.	---	3/ 4/48	Tri-Cities Elec. Service	Signals	9,655	---	9,655
1-11VMC21	San Diego	2	S.D	Miramar to Torrey Pines Grade	2.4	4/29/50	R. E. Hazard Contr. Co., Inc.	Surface Shoulders	11,833	1,500	*13,333
1-11VVC4	San Diego	2	S.D	At Jellet St.	0.3	3/20/50	V. R. Dennis Const. Co.	Grade & Surface	15,486	4,000	*19,486
1-11VVC2	San Diego	2	S.D	Couts St. to Rosecrans	0.7	7/20/50	Cox Bros. Construction Co.	Grade & Plant Mix Surface	59,625	7,500	*67,125
1-11VVC8-P	San Diego	2	S.D	At 8th Ave.	---	6/14/50	V. R. Dennis Construction Co.	Signals & Lighting	34,606	2,395	*37,001
11VC17	San Diego	12	A, LMsa, B, ECj	Bet. San Diego & El Cajon	2.9	7/31/47	Griffith Company	Plant Mixed Surfacing	42,564	2,102	44,666

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
51-11VC9	San Diego	12	B	At East La Mesa Blvd., Fuerte Dr., & Murray Ave.	---	1/22/51	R. E. Hazard Contracting Co., Inc.	Signals, Lighting, & Channelization.	\$43,298	\$5,300	*\$48,598
11V46	San Diego	12	D	Willows to Sweetwater River	6.3	4/22/48	Prison Labor	Grading	197,570	11,064	208,634
11V53	San Diego	12	D	Willows to Sweetwater	6.3	9/3/48	Prison Labor	Grade	199,700	16,685	206,385
11V55	San Diego	12	D	Willows to Descanso lot	7.0	7/1/49	Prison Labor	Grade	491,575	50,000	*541,575
1-14VC90	San Diego	12	D	Viejas Cr., 3 Mi. E. of Alpine	---	7/22/49	E. G. Perlman	Constr. Bridge	49,921	8,922	58,843
11VMC12-P	San Diego	12, 200	S.D.	College Ave. & El Cajon Blvd.—30th St. & Market St.	---	3/23/48	Ets-Hokin & Galvan	Signals	18,557	---	18,557
0-11VMC18	San Diego	12, 2, 200	S.D.	Three Locations	5.9	10/19/48	Griffith Co.	Resurfacing	230,531	---	230,531
11VC22-P	San Diego	12	S.D.	On Washington St. & on El Cajon Blvd.	---	2/20/48	Tri-Cities Elec. Service	Signals & Lighting	42,963	737	43,700
11GC3	San Diego	City St.	S.D.	On Washington St., Normal St., & El Cajon Blvd.	---	9/8/47	Griffith Company	Grade, P.C.C. & P.M.S.	209,776	18,040	227,816
1-11VMC20	San Diego	12	S.D.	On Canyon St., Rosecrans St. to 1/2 Mi. W.	1.1	6/28/49	Pace Const. Co.	Resurface & Install Storm Drains	86,157	---	86,157
1-11VVC3-P	San Diego	12, 200	S.D.	On El Cajon Blvd. & on Market St.	0.5	11/4/49	Ets-Hokin & Galvan	Signals & Lighting	25,540	1,343	*26,883
1-11VVC7-P	San Diego	12	S.D.	At Canon Street	---	6/20/50	Ets-Hokin & Galvan	Signals	4,395	1,000	*5,395
51-11VC8-P	San Diego	12, 200	S.D.	El Cajon Blvd. at 56th and 59th Sts., & Market St. at Kettner Blvd.	---	1/15/51	California Electric Works	Signals & Lighting	22,537	2,000	*24,537
0-11VC36	San Diego	77	A	N. of San Diego City Limits to Murphy Canyon Rd.	2.8	8/6/48	V. R. Dennis Const. Co.	Surfacing	38,384	3,090	41,474
0-11VC41	San Diego	77	A	San Diego to Miramar	6.5	11/10/48	R. E. Hazard Contr. Co., Inc., & C. G. Willis & Sons, Inc.	Grade, Pavement & Structure	686,895	64,142	751,037
0-11VC30-P	San Diego	77	A, B	Miramar to Lake Hodges	12.0	6/16/48	Griffith Co.	Grade, Pavement & Structure	1,648,368	114,378	1,762,746
1-11VC51-F	San Diego	77	A, B	N. City Limits of San Diego to Miramar	6.5	11/18/49	Cox Bros. Construction Co.	Plant Mix Surface	428,159	54,000	*482,159
1-11VC56-F	San Diego	77	A, B	Miramar to Lake Hodges	11.8	4/1/50	Peter Kiewit Sons' Co.	Plant Mix Surface	212,235	28,000	*240,235
11VC35	San Diego	77	B, Esd., F	0.9 Mi. S. to 0.3 Mi. N. of Escondido	3.0	6/29/48	Griffith Co.	Grade, Surface & Bridges	607,181	69,811	676,992
0-11VC46	San Diego	77	B, Esd	15th Ave. to Grant Ave.	1.7	6/18/49	Jaumech Nurseries	Landscape	18,534	2,730	21,264
11X30	San Diego	77	F, G	Escondido to Sta. 380	---	8/30/46	Prison Labor	Grading	523,200	35,724	558,924

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
11XC21	San Diego	77	F, G	Bet. Escondido & 3.4 Mi. S. of Riverside Co. Line.	19.6	8/22/47	Morrison-Knudsen Co., Inc.	Plant Mixed Surfacing, Grading & Drainage.	\$208,724	\$14,459	\$223,183
11V52	S.D., Riv.	77	F, G, A	Escondido to Murietta.	6.0	7/1/48	Prison Labor.		150,300	18,500	168,800
411X4	San Diego	77	G	S. Moosa Cr. to San Luis Rey River.	1.5	6/30/41	Prison Labor.	Grading.	1,061,201	79,173	1,140,374
0-11VC38	San Diego	77	G	Riverside County Line to 3.4 Mi. S.	3.4	9/29/48	Peter Kiewit Sons' Co.	Surfacing.	68,453	3,846	72,299
14XC12	San Diego	77	G	At San Luis Rey River & Keyes Canyon Cr.		4/26/46	Spencer Webb	Two Steel Girder Bridges.	169,111	18,594	187,705
0-11VC1	San Diego	77	Escl	5th Ave. & Grand Ave.		6/28/49	Clinton Elec. Corp.	Signals & Lighting.	13,589	1,443	19,932
51-11VC4-P	San Diego	77, 197	Escl, F, Escl	At Grant Avenue & at Grand Avenue.		10/18/50	Els-Hokin & Galvan.	Signals & Lighting.	12,770	1,500	*14,270
14XC6	San Diego	77	S.D.	At Date St., Quince St., & Upas St.		12/5/45	M. H. Golden Const. Co.	R.C. Overcrossings.	158,981	16,935	175,916
14XC7	San Diego	77	S.D.	Across San Diego River.		12/13/45	Harry L. Foster.	R.C. Bridge.	178,002	15,377	193,379
14XC9	San Diego	77	S.D.	Over Balboa Pkwy. at Richmond St.		2/20/46	M. H. Golden Const. Co.	Overhead Crossing.	60,178	9,974	70,152
14XC13	San Diego	77	S.D.	At Friar's Rd.		6/25/46	Fred D. Kyle.	Steel Girder Overcrossing.	56,117	7,772	63,889
14XC16	San Diego	77	S.D.	Over Balboa Pkwy. at Pascoe St.		8/8/46	Carroll & Foster.	R.C. Overcrossing.	74,606	8,784	83,390
14XC17	San Diego	77	S.D.	On Balboa Pkwy. at 6th St.		8/8/46	M. H. Golden Const. Co.	R.C. Overcrossing.	111,633	9,253	120,886
11XC10	San Diego	77	S.D., A	Bet. 0.4 Mi. S. of Mission Valley Rd., & 0.5 Mi. N. of San Diego City Limits.	4.1	5/15/46	Basich Bros. Const. Co. & Basich Bros.	Grading & P.C.C. Surfacing.	1,121,774	102,836	1,224,610
11X43	San Diego	77	S.D., A	"A" St. to 0.5 Mi. N. of San Diego City Limits.		8/28/47	Day Labor.	Traffic Signs.	8,471		8,471
11XC9	San Diego	77	S.D.	Bet. "A" St. & 0.4 Mi. S. of Mission Valley Rd.	2.9	1/11/46	Mittrey Bros. Const. Co. & Basich Bros. Const. Co.				
11XC16	San Diego	77	S.D.	Bet. "A" St. & 0.4 Mi. S. of Mission Valley Rd.	2.9	4/21/47	Jannock Nurseries.	Grading & P.C.C. Paving.	1,384,011	122,945	1,506,956
14XC15	San Diego	77	S.D.	At University Ave.		6/25/46		Landscaping.	72,369	6,739	79,108
14XC14	San Diego	77	S.D.	At Mission Valley Rd.		6/26/46	M. H. Golden Const. Co.	R.C. Overcrossing.	131,001	11,375	142,466
11XC19	San Diego	77	S.D.	Bet. 11th Ave. & "A" St. in San Diego.		8/1/47	M. H. Golden Const. Co.	Two R.C. Overcrossings.	243,800	17,635	260,435
1-11VC47	San Diego	77	S.D.	Cabrillo Freeway, "A" St. to Friar's Rd.		8/5/49	Tri-Cities Elec. Service, State Const. Co.	Signals & Lighting.	9,907	10,721	20,628
								Lighting Highway.	78,198	10,000	*88,198
14XLC6	San Diego	78	A	Across Sanagatuna & Descanso Creeks.		5/16/46	Obert & Cook.	2 Bridges.	88,860	8,590	97,350
1-14VC83	San Diego	78	A	Sweetwater River.	0.4	4/14/49	Thomas Const. Co.	Const. Bridge & Approaches.	65,376	8,316	73,692
51-11VC1	San Diego	78	A, B	At Boulder & Sevilla Creeks.	1.0	5/11/50	Arthur A. Johnson.	Culverts & Approaches.	55,597	11,000	*66,597

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
110X14	San Diego	78	B, C	Bet. 0.9 Mi. E. Santa Ysabel & 2.4 Mi. W. Julian	1.3	2/17/47	Clifford C. Bong & Co.	Grading & Surfacing	\$118,626	\$10,982	\$129,608
0-11VC37	San Diego	78	B, C	Julian to Santa Ysabel	1.5	9/ 1/48	E. C. Young & Co.	Grade & Surface	180,871	19,484	200,355
1-11VC43	San Diego	78, 198	C, H	Near Santa Ysabel & W. of Ramona	1.3	5/ 6/49	Clifford C. Bong & Co.	Grade & Surface	71,342	9,186	80,528
14XC10	San Diego	78	D, E	At Matagual Valley Cr., Canada Verde Cr. & Acorn Cr.	—	4/ 1/46	O'Rourke & Parker	R.C. Slab Bridges	40,214	4,699	44,913
14VC42	San Diego	78	D	Agua Caliente Cr. & Buena Vista Cr.	0.5	12/17/47	E. S. & N. S. Johnson	2 Bridges & Approaches	84,897	10,800	95,696
11VC19	San Diego	78, 195	E, C	Bet. 3.1 Mi. & 3.5 Mi. N. of San Luis Rey River & Bet. Colby Ranch & Rincon Store	1.1	12/30/47	Arthur A. Johnson	Grade & Bit. Surface Treat.	41,041	4,850	45,891
11V41	San Diego	195	B	Live Oak Creek	—	2/ 2/48	Day Labor	Grade Approaches	13,444	798	14,242
0-14VC59	San Diego	195	B	Live Oak Creek	—	6/29/48	E. G. Perham	R.C. Bridge	18,569	3,453	22,022
51-11VC3-P	San Diego	195	Oen	Horne St. to Canyon Drive	0.7	7/26/50	Arthur A. Johnson	Bituminous Surface Treatment	41,312	12,250	*53,562
14XLC8	San Diego	197	B	Across Santa Ysabel Cr.	—	11/ 1/46	Spencer Webb	Bridge & Approaches	225,425	18,387	243,812
14VC48	San Diego	198	F	San Felipe Cr. E. of Julian	0.3	2/16/48	Walter H. Barber	Bridge & Approaches	89,936	9,446	99,382
14VC41	San Diego	198	ECj	At Wright St. Cr. in El Cajon	—	12/11/47	Johnson-Western Co.	R.C. Culvert	16,039	2,128	18,167
11VC25	San Diego	199	A	At National Ave. & Palm Ave.	—	3/22/48	Ets-Hokin & Galvan	Signals	5,013	338	5,351
0-11VMC19-P	San Diego	199	Cord	On Orange Ave.	1.5	10/19/48	R. E. Hazard Const. Co.	Resurfacing	64,059	—	64,059
14XLC9	San Diego	200	B	At Dulzura Cr. about 5 Mi. S. of Jamul	0.3	4/10/47	Griffith Company	Bridge & Approaches	76,748	6,454	83,202
11V54	San Diego	200	C	Cottonwood Creek	—	12/17/48	Day Labor	Fill	7,416	26	7,442
14XLC5	San Diego	200	D	At Campo Cr. about 6 Mi. W. of Campo	—	12/21/45	Walter H. Barber	Steel Bridge & Approaches	81,318	9,227	90,545
11VC24P	San Diego	200	S.D	Euclid Ave. & Federal Blvd.	—	3/11/48	California Elec. Works	Signals	9,950	860	10,810
11DC1-P	San Diego	FAS 732, 12	LMsa	Fairmont Extension to Rte. 12	5.0	9/27/48	Daley Corp.	Grade, Pave & Structure	818,476	82,536	901,012
11DC4P	San Diego	FAS 732	—	On Mission Valley Road	—	11/ 7/49	Griffith Co.	Const. Culvert	37,197	4,800	*41,997

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
4T04	San Diego			Various Locations				Minor Contracts & D.L. Projects	\$74,131	\$34	\$74,165
14TMC1	San Francisco	2	S.F.	Alamany Blvd. bet. Mission St. & Sta. 36		5/12/47	State's Share of Cost.	Grade & Pave.	98,000		98,000
15T3	San Francisco	2	S.F.	Bridge Over Presidio of San Francisco		11/ 6/46	R. W. Reade & Co.	Clean & Paint Approach Bridge	41,615		41,615
15T5	S.F. Ala.	68.5	S.F.-Oak	San Francisco-Oakland Bay Bridge		7/19/45	Day Labor	Insurance	130,410		130,410
1-15TC3	S.F. Ala.	68.5	S.F.-Oak	San Francisco-Oakland Bay Bridge		8/10/48	Day Labor	Maintenance and Operation	1,180,846		1,180,846
1-15TC3	San Francisco	68	S.F.	San Francisco-Oakland Bay Bridge		8/25/49	Healy Tibbitts Construction Co.	Repair Fender	14,904		*14,904
51-15TC1	San Francisco	68	S.F.	At Harbor Pier No. 24		3/26/51	Grinnell Co. of the Pacific	Sprinkler System	1,300		*1,300
1-15TC4	San Francisco	68	S.F.	On San Francisco-Oakland Bay Bridge		6/22/50	Calif. Steel Products Co.	Painting Scaffolds	41,781		*41,781
	San Francisco			Various Locations				Minor Contracts & D.L. Projects	1,345		1,345
14TC21	S.J. Sta.	4	A, B	See Stanislaus County							
10TC15	S.J. Sta.	4	A, B, Rip	See Stanislaus County							
10TC24	S.J. Sta.	4	A, B, Rip	See Stanislaus County							
10TC14	San Joaquin	4	C	Bet. Calaveras River & Lodi	8.2	6/22/46	Fredrickson & Watson Const. Co.	Grade, P.C.C. Pvt. & 3 Bridges.	813,602	65,547	879,149
10TC23	San Joaquin	4	C	Bet. Calaveras River & Lodi		8/28/47	F. Kaus	Barrier Posts	25,170	4,353	29,523
0-10TMC6P	San Joaquin	4	C, Lod	Cherokee Lane at Lodi Ave., Pine St. & Victor Rd.		8/ 3/48	Els-Hokin & Galvan.	Signals	9,695		9,695
1-10TC32	San Joaquin	4	C	Calaveras River to Lodi	6.9	7/ 7/49	Claude C. Wood Co.	Crossovers	31,198	3,532	34,730
10TL2	San Joaquin	4	E	At Little John Cr. & S. Br. of Little John Cr. Br. No. 29-17, 18		9/21/44	Day Labor	Bridge Repair	10,476	746	11,222
10TL4	San Joaquin	4	E	At French Camp Slough & Lone Tree Slough Overflow Brs. No. 29-19, 20		10/16/44	Day Labor	Repairs	10,400	749	11,149
10TL5	San Joaquin	4	E	At Lone Tree Slough Overflows, Br. No. 29-21, 22		11/24/44	Day Labor	Replace Abutments	10,782	743	11,525
10TC25F	San Joaquin	4, 5	E, Sktn, C	Two Locations	6.3	12/ 4/47	Lord & Bishop & M.J.B. Const. Co.	Grade, Pave & Structures	1,463,373	150,000	*1,613,373
51-10TC10	San Joaquin	4	E, C	Mariposa Rd. to Waterloo Rd.		8/18/50	Westates Electrical Construction Co.	Signals	33,868	2,700	*36,568
1-10TC45-F	San Joaquin	4, 5	E, Sktn, C, Sktn	Mariposa Rd. to Calaveras River & Wilson Way to Rte. 4	7.2	4/ 1/49	United Concrete Pipe Corp.	Grade & Surface	1,138,420	90,000	*1,228,420

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-10TC60	San Joaquin---	4, 5	E, S1/4, C, S1/4	Mariposa Rd. to Calaveras River	---	3/ 1/50	R. Gould & Son.	Lighting	\$37,368	\$3,700	*\$41,068
1-10TMC9	San Joaquin---	4, 24	Lodi, C, Lodi	Lockeford St. to 0.1 Mi. N. of Lodi City Limits, & Cherokee Lane to 0.3 Mi. E.	0.6	7/20/49	Claude C. Wood Co.	Widening & Resurfacing	53,999	---	53,999
1-10TC46	S.J. Sta.-----	4	Rip, C	See Stanislaus County	---	---	---	---	---	---	---
10TC12	San Joaquin---	5	A, Tra	Bet. Byron Rd. & Banta Rd.	5.5	5/ 6/46	M. J. Ruddy & Son.	Rock Base & Plant Mixed Surfacing	137,462	11,347	148,809
10TC10	San Joaquin---	5	B	Bet. Grant Line Rd. & Mossdale	3.8	1/22/46	M.J.B. Construction Co.	Grading & P.C.C. Paving	396,325	45,040	441,365
14TC10	San Joaquin---	5	B	Across Paradise Cut & Paradise Cut	---	1/28/46	Stockton Const. Co.	Steel Bridge & R.C. Bridge	114,333	13,563	127,896
14TC17	San Joaquin---	5	B	Overflow	---	11/22/46	Lord & Bishop	Bridge Substructure	257,449	13,423	270,872
14TC25-F	San Joaquin---	5	B	Across San Joaquin River at Mossdale	---	9/22/47	Judson-Pacific-Murphy Corp.	Bridge Superstructure	436,578	34,360	470,938
10TMC2	San Joaquin---	5	Tra	On 11th St., Bet. N. "B" St. & Central Ave.	---	10/ 2/47	Charles I. Cunningham	Paving with Portland Cem. Conv.	2,313	2,313	2,313
10TC30P	San Joaquin---	5	Tra	Between East St. & Roosevelt Ave.	---	4/ 9/48	Parker Electric	Signals	13,499	13,499	13,499
1-10TC43	San Joaquin---	41	A	S'ly Boundary to Rte. 5	8.3	4/ 1/49	M. J. Ruddy & Son.	Base & Seal Coat	125,306	3,653	128,959
1-14TC62	San Joaquin---	53	C	Potato Slough	---	4/ 1/49	R. G. Clifford	Reconstruct Bridge	55,081	4,548	59,629
51-10TC5	San Joaquin---	53	C	4 Mi. E. of Terminus	0.3	4/15/50	Claude C. Wood Co.	Grade & Surface	23,216	3,500	*26,716
1-10TC47	San Joaquin---	66	B	Brennan Road to Easterly Boundary	5.2	4/12/49	Granite Const. Co.	Surface	88,379	11,795	100,174
0-14TC56	San Joaquin---	75	A	Old & Middle Rivers	---	12/ 6/48	Law Jones Const. Co.	Rebuild 2 Bridges	64,785	5,647	70,432
10WC15	San Joaquin---	75	A	Bet. Middle River & Hot	4.4	4/22/47	M.J.B. Construction Co.	Plant Mixed Surfacing	97,071	4,061	101,162
1-10TC51	San Joaquin---	75	A	Old River to Middle River	4.3	6/15/49	M.J. Ruddy & Son.	Surface	108,634	7,000	*115,634
10W43	San Joaquin---	75	B	Bet. Beginning of Section & Hewitt Rd.	12.1	8/19/48	Day Labor	Patching & Seal Coat	21,525	1,277	22,802
51-10TC14	San Joaquin---	75	B	At Mormon Slough & at Lone Oak Creek	---	10/31/50	Thomas Const. Co.	Grade, Surface, & Remove Bridge	32,700	4,100	*36,800
1-10TC57	San Joaquin---	75	S1/4	French Camp Turnpike to El Dorado St.	0.2	9/15/49	A. Teichert & Son, Inc.	Grade & Surface	52,161	3,134	55,295
14WLC48	San Joaquin---	97	A	Across Calaveras River	0.4	3/13/47	Elmer J. Warner	Grade, Surface & Bridges	72,166	7,142	79,308
144N2	San Joaquin---	Access	---	At S.P. & W.P.R.R. Crossing on JX & Lahrop Rds.	---	3/12/45	Day Labor	Install Flashing Light Signals	12,849	---	12,849

DEPARTMENT OF PUBLIC WORKS

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
14DC47	S.J. Sac.	FAS 540		Mokelumne River.		1/7/49	Lord & Bishop	Bridge & Approaches	\$264,612	\$20,000	*\$284,612
10DC9	San Joaquin	FAS 540		Thornton Road.	0.8	10/ 5/49	M.J.B. Const. Co.	Grade & Surface	70,875	7,500	*78,375
14DC13	San Joaquin	FAS 901		Across Mokelumne River.		4/23/47	A. A. Edmondson & A. L. Miller	Steel R. C. Bridge	164,234	2,437	166,670
10DC5	San Joaquin	FAS 901		Davis Road to Bender Road.	0.8	8/30/48	Claude C. Wood Co.	Grade & Surface	50,520	3,996	54,516
10DC13	San Joaquin	FAS 908		Rte. 5 to Holly Sugar Spur.	3.7	6/22/50	P. J. Moore & Son	Grade & Plant Mix Surface.	104,624	12,500	*117,124
	San Joaquin			Various Locations.				Minor Contracts & D.L. Projects.	39,273	1,000	40,273
5V18	San Luis Obispo	2	D	Near Santa Margarita.		4/ 5/48	Day Labor	Truck Scales	15,420		15,420
5VC14F	San Luis Obispo	2	D	San Luis Obispo to Cuesta Grade.	2.7	6/20/47	Fredericksen & Kasler	Grade & Surface.	736,207	49,407	785,614
5VC15F	San Luis Obispo	2	E, SLO	Miles Station to Marsh St.	6.6	11/ 4/47	Fredericksen & Kasler	Grade & Surface.	1,405,015	92,559	1,497,574
1-5VC2	San Luis Obispo	2	E	At Santa Fe Bridge.		11/29/49	Gallagher & Ochs	Highway Lighting	2,396	675	*3,071
0-5VC16	San Luis Obispo	2	F	Deleisigues Cr. & Russel Turn.	2.3	4/ 1/48	Madonna Const. Co.	Grade & Surface.	126,573	7,265	133,838
5VC13	SLO, S.B.	2	F, C	See Santa Barbara County							
5V9	San Luis Obispo	2	F, E	Bet. Nipomo & Pismo Beach	4.0	4/13/46	Day Labor	Stabilize & Raise Shldrs.	5,674	62	5,736
5VC7	San Luis Obispo	2	F	Bet. Santa Maria River & 1.5 Mi. S. of Nipomo.	2.1	6/11/46	Fairey-Hammond, Inc.	Plant Mixed Surfacing	102,962	5,885	108,847
5V43	San Luis Obispo	2	PsRs, A	North City Limits to 1,300' north.		9/ 7/48	Day Labor	Improve 2 Curves	5,917		5,917
5VC19-F	San Luis Obispo	2	PBch, E	Bet. Pismo Beach & Miles Station.	4.9	4/29/48	Fredericksen & Kasler	Grade, Surface & Bridge	1,041,415	87,825	1,129,240
5VC17	San Luis Obispo	2	SLO	At Marsh & Higuera St.		4/ 6/48	L. H. Leonardi Elec. Const. Co.	Signals.	15,669	619	16,288
1-5VC31	San Luis Obispo	2	SLO, S.B	See Santa Barbara County							
1-5VC29	San Luis Obispo	33, 125	C, D	Cholame to Kern Co. Line.	4.0	5/10/49	Valley Paving & Const. Co., Inc.	Resurface.	132,880	19,105	151,985
1-5VC34	San Luis Obispo	33	C	Rte. 125 to Kern Co. Line.	4.2	3/29/50	Granite Construction Co.	Plant Mix Surface.	99,194	17,500	*116,694
14XLC10	San Luis Obispo	33	D	Across Santa Rosa Cr. 9 Mi. E. of Cambria		6/18/47	E. G. Perham	R.C. Bridge.	16,675	2,898	19,573

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
51-5VC1	San Luis Obispo	33	D	At Black Mountain Creek.....	0.1	4/29/50	Thomas Construction Co.	Replace Bridge with Culvert.....	\$9,529	\$2,100	*\$11,629
0-14VC52	San Luis Obispo	33	E	Across Rocky Cr. East of Cambria.....		4/29/48	D. M. Pilburn.....	R.C. Bridge.....	15,482	2,011	17,493
5X17	San Luis Obispo	56	A	Bet. Arroyo de la Cruz & San Carpojo Cr.	3.9	3/20/47	Day Labor.....	Resurfacing.....	13,963	319	14,282
1-14VC100	San Luis Obispo	56	C	At Cayucos Creek.....		5/18/50	Madonna Construction Co.	Bridge & Approaches.....	115,166	12,950	*128,116
0-5VC23	San Luis Obispo	56	D	San Luisito Cr. & San Bernardo Cr.....	0.2	8/16/48	O. R. Ochs & Son.....	2 Culverts & Approaches.....	37,776	4,088	*41,864
14X1C11	San Luis Obispo	56	E	Across Villa Cr.....		6/24/47	E. G. Perham.....	R.C. Slab Bridge.....	27,541	3,707	31,248
5X18	San Luis Obispo	57	B	At Gifford Cattlepass.....		4/ 9/46	Day Labor.....	R.C. Bridge.....	8,663	27	8,663
51-14VC2	San Luis Obispo	57	B	38.9 to 46.6 Mi. E. of Santa Maria.....		6/14/50	E. G. Perham.....	R.C. Culverts.....	27,193	4,200	*31,393
0-14VC58	San Luis Obispo	125	B	Salinas River.....		6/18/48	O. R. Ochs & Son.....	Redeck Bridge.....	15,106	3,017	18,123
51-5VC7	San Luis Obispo	125	D	Rte. 33 to Kern Co. Line.....	3.7	10/ 3/50	Granite Construction Co.	Grade & Plant Mix Surface.....	125,482	17,500	*142,982
5DC3	San Luis Obispo	FAS 678		Rte. 56 to 1/2 Mi. W. of Los Osos Creek.....	3.1	3/11/48	Madonna Const. Co.....	Grade & Imported Borrow.....	58,363	8,820	67,183
5DC9	San Luis Obispo	FAS 679		On Avila Rd., Ontario Hot Springs to Avila.....	2.5	11/14/49	Granite Const. Co.....	Grade & Surface.....	116,252	18,000	*134,252
5DC2	San Luis Obispo	FAS 683		On Oso Flaco-Nipomo Rd., Bet. S.P.R.R. & 3.2 Mi. Easterly.....	3.2	4/11/47	A. Madonna.....	Bit. Surface Treatment.....	63,407	6,071	69,478
5DC7	San Luis Obispo	FAS 1085		Rte. 2 to E. of Estrella.....	4.2	4/20/49	Eaton & Smith.....	Grade.....	64,005	6,979	70,984
5DC1	San Luis Obispo	FAS 1086		Bet. State Rte. 137 & Rinconada-Las Pilitas Rd.....	6.0	3/28/47	Nathan A. Moore.....	Grade & Imp. Base Material.....	50,408	3,933	54,341
5DC4	San Luis Obispo	FAS 1086		Rte. 137 to Rinconada-Las Pilitas Rd.....	6.1	6/ 7/48	Ned H. Mulleneaux.....	Bit. Surf. Tr. & Pen. Tr.....	15,802	1,464	17,266
	San Luis Obispo			Various Locations.....				Minor Contracts & D.L. Projects.....	52,038		52,038
4T44	San Mateo	2	A	At Hillcrest Blvd.....		10/22/46	Day Labor.....	Traffic Signals.....	6,339	500	6,839
4TMC6	San Mateo	2	A, Burl	On El Camino Real, Bet. Rosedale Ave. & Primrose Rd.....		8/ 7/47	Severin Electric Co.....	Traffic Signals.....	39,617		39,617
4TCS2	San Mateo	2	A	Junipero Serra Blvd. & Santa Ynez Ave.....		4/20/48	Jensen & Pitts.....	Signals & Channelization.....	37,965	6,766	44,731

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-4TMC12-P	San Mateo	2	Burl, SM	Peninsular Ave. to Hillsdale Blvd.		9/13/48	Geo. Pollock Co.	Signals	\$54,924		\$54,924
51-4TC29-P	San Mateo	2	MIP	Valparaiso Ave. to Ravenswood Ave.		1/13/51	L. H. Leonardi Electric Const. Co.	Signal System	24,448	\$3,000	*27,448
1-4TTC11-P	San Mateo	2	RdwC	Whipple Ave. to Woodside Road		1/10/50	L. H. Leonardi Electric Const. Co.	Signals & Lighting	33,040	4,950	*37,990
51-4TC20	San Mateo	55, 56	A, E, DIC	At Skyline Blvd. & at Junipero Serra Blvd.		10/31/50	Eaton & Smith	Signals, Lighting, & Channelization	103,308	14,500	*117,808
4TC55	San Mateo	56	A	At Whitehouse Cr. & at Gazos Creek	0.2	5/13/48	Gordon L. Capps.	Grade, Surface, & Bridges	44,608	9,601	54,209
4WC20	San Mateo	56	A, C	See Santa Cruz County							
0-4RTC1	S.M., SCT.	56	A, C	Cypress Creek 0.6 Mi. N. Santa Cruz							
1-4TC87	San Mateo	56	A	San Mateo County Line	0.3	6/7/49	Granite Const. Co.	Grade & Surface	31,259	5,300	*36,559
0-4TC81	San Mateo	56	C, D	Half Moon Bay to Montara Creek	5.0	4/14/49	A. Teichert & Son, Inc.	Grade & Surface	395,891	65,000	*460,891
51-4TC4	San Mateo	56	C	1 Mi. S. to 0.5 Mi. N. of Lobos	1.3	6/2/50	Westbrook & Pope	Grade & Plant Mix Surface	206,838	36,000	*242,838
1-4TC98	San Mateo	56	C	Frenchman's Creek to 1 Mi. Northerly	1.0	1/20/50	Eugene G. Alves	Grade & Plant Mix Surface	83,569	17,100	*100,669
1-4TC106	San Mateo	56	DIC	At Westlake Subdivision		6/7/50	Minton & Kubon	Metal Liner Plate Culvert	11,969	3,000	*14,969
4TC36	San Mateo	68	A	At Geneva Ave. & near Visitation Ave.	0.6	5/16/47	Chas. L. Harney, Inc.	Signals & Channelization	78,987	8,964	87,951
4TC2	San Mateo	68	B	At San Bruno Ave.		3/27/46	Day Labor	Traffic Signals	4,244		4,244
4TC55	San Mateo	68	B	At Main Entrance to S.F. Municipal Airport		1/30/47	Day Labor	Traffic Signals	19,391	947	20,338
4TC35	San Mateo	68	B	At Millbrae Ave.		6/26/46	Day Labor	Signal System	4,714		4,714
4TC36	San Mateo	68	C	At Holly St.		6/21/46	Day Labor	Traffic Signals	5,545		5,545
51-4TC10-P	San Mateo	68	C	At E. Hillsdale Blvd.		8/21/50	L. C. Smith	Signals, Lighting, & Channelization	17,917	2,000	*19,917
4TC88	San Mateo	68	D	Willow Road		1/19/48	Day Labor	Signals & Channelization	10,240	667	10,907
14TC19	San Mateo	68	F, Burl	On Bayshore Freeway, Bet. South San Francisco & Burlingame		2/28/47	Carrico & Gautier	Substructures for 4 Overcrossings	397,057	32,554	429,581
14TC24-F	San Mateo	68	F, Burl	South San Francisco to Burlingame		8/7/47	Carrico & Gautier	4 Overpass Superstructures	983,375	51,715	1,035,090
4TC8	San Mateo	68	Bmt	At Ralston Ave.		8/13/46	Day Labor	Traffic Signals	6,534	413	6,947
4TC24	San Mateo	68	Burl, SM	Bet. Broadway in Burlingame to State St. in San Mateo	2.2	6/22/46	Guy F. Atkinson Co.	Grade & Pave with P.C.C. on C.R.B.	672,385	72,254	744,639

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
4TC46	San Mateo	68	Burl, SM	Broadway in Burlingame to Peninsular Ave. in San Mateo	2.0	2/13/48	Huetig & Schromm	Landscaping	\$8,517	\$2,348	\$10,865
4T30	San Mateo	68	S.M	At Third Ave.		12/31/45	Day Labor	Revise Signal System	6,519		6,519
14TC9	San Mateo	68	S.M	On Bayshore Freeway at Peninsular Ave.		1/22/46	Macco Const. Co.	Steel Overcrossing	258,917	22,410	281,327
0-4TMC11-P	San Mateo	68	S.M	Peninsular Ave. to Poplar Ave.	0.4	8/24/48	L. C. Smith	Grade & Bit. Surf. Tr.	20,410	2,950	*23,360
4T74	San Mateo	68	SSF	South San Francisco to Burlingame		9/10/47	Day Labor	Signals	21,165	1,143	22,308
4TC42-F	San Mateo	68	SSF	N.C.L. of South San Francisco to S. of Colma Creek	2.1	8/21/47	Guy F. Atkinson Co.	Paving	1,038,157	120,000	*1,158,157
4TC53	San Mateo	68	SSF, F, Burl	Colma Cr. in S.S.F. to Broadway in Burlingame	4.9	5/ 5/48	Frank W. Smith	Armor Coat	17,491	3,311	20,802
4T94	San Mateo	68	SSF, F, Burl	South San Francisco Underpass to Broadway in Burlingame		2/24/48	Day Labor	Restore Grade	7,133		7,133
14TC23-F	San Mateo	68	SSF	At Main Line & Belt Line R.R. in S.S.F.		6/27/47	J. H. Pomeroy & Co., Inc.	2 Overpass Superstructures	644,086	23,798	667,884
14TC20-F	San Mateo	68	SSF	In South San Francisco		4/11/47	Harry J. Oser & Peter Sorenson	5 Structures	470,763	40,617	511,380
4TC26	San Mateo	68	SSF	Bet. S.P.R.R. & 0.5 Mi. Southerly	0.5	6/25/46	Piombo Bros. & Co.	Grade & Construct Sand Drains	201,558	24,697	226,255
4TC30	San Mateo	68	SSF, F, Burl	Bet. Colma Cr. in South San Francisco & Broadway in Burlingame	5.1	10/ 9/46	Macco Corp. & Morrison-Knudsen Co., Inc.	Grading & Paving	2,847,799	178,436	3,026,235
4T81	San Mateo	68	SSF, F, Burl	Colma Creek to Broadway in Burlingame	4.9	4/29/48	Day Labor	Signs & Stripes	19,785		19,785
1-4TC96	San Mateo	68	SSF, F, Burl	Grand Ave. to Broadway	5.5	11/ 1/49	Leonard Coates Nurseries, Inc.	Roadside Planting	36,848	8,800	*45,648
4W16	San Mateo	105	A	At Pilarcitos Bridge, No. 35-15		2/21/47	Day Labor	Bridge Repairs	4,895	213	5,108
0-4TC65	San Mateo	105	A	3 Mi. E. to Half Moon Bay	2.7	7/28/48	L. C. Smith	Surfacing	87,812	12,783	100,595
4DC7	San Mateo	FAS		2.5 Mi. N. of Woodside to Ralston Ave.	4.7	6/30/47	Edward Keeble	Grade & Surface	248,414	18,155	266,569
1-4DC14	San Mateo	FAS		1.7 Mi. N. of Portola Rd. to Mayfield Ave.	2.6	5/ 5/50	Eugene G. Alves	Grade, Surface & Structure	142,499	20,000	*162,499
4DC2	San Mateo	FAS		On Whipple Rd., Bet. Canada Rd., & Alameda de las Pulgas	2.9	8/ 8/46	Piombo Bros. & Co.	Grading	158,435	1,587	160,022
0-4TTC5-P	S.M., Ala.	Var	Var	See Alameda County							

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
	San Mateo			Various Locations				Minor Contracts & D.L. Projects	\$69,222		\$69,222
5VC13	S.B., SLO	2	C, F	Bet. Zaca & Wignore & Bet. 1.5 Mi. S. of Nipomo & Delessigues Cr.	3.9	5/ 7/47	Brown & Doko.	Plant Mixed Surfacing	118,797	\$5,582	124,379
5V10	Santa Barbara	2	C, M, L	Bet. Zaca & Santa Maria (Portions)	9.8	4/13/46	Day Labor	Stabilize & Raise Shldrs.	16,297	141	16,438
0-5VC18-F	Santa Barbara	2	D	Santa Ynez River to Jonasta Park	3.6	4/ 9/48	Dimmitt & Taylor & T.	Grade & Surfacing	552,023	88,421	618,444
14VC38-FP	Santa Barbara	2	D	Nojoqui Cr. & Santa Ynez River		10/ 8/47	M. Page	2 Bridges	516,334	25,942	542,276
1-5VC33	Santa Barbara	2	D	In Buellton	0.2	11/10/49	C.B. Tuttle Co. Valley Paving & Const. Co., Inc.	Grade & Pave	8,786	2,530	*11,316
1-5VC31	S.B., SLO	2	D, E, SLO	Santa Ynez River to Jonasta Park & Miles Sta. to Marsh St.	9.9	8/31/49	Madonna Const. Co.	Seal Coat	23,877	1,392	25,269
5V44	Santa Barbara	2	D	Nojoqui River to Santa Ynez River	0.38	5/24/49	Day Labor	Guard Rail	4,767	*4,767	
5V8	Santa Barbara	2	F	Bet. El Capitan Cr. & Aleatraz	0.6	4/ 6/46	Day Labor	Plant Mixed Surfacing	8,998	61	9,059
0-5VC25	Santa Barbara	2	F	Bet. Arroyo Quemado & Arroyo Honda	2.6	9/27/48	Clyde W. Wood, Inc.	Grade, Surface & Culverts	668,367	75,000	*743,367
51-5VC5	Santa Barbara	2, 56	F, L, A, B	Various Locations	8.9	8/30/50	Valley Paving & Construction Co.	Seal Coat	18,895	3,500	*22,395
5VC9	Santa Barbara	2	G	Bet. ¼ Mi. E. of Las Varas Cr. & ¼ Mi. E. of El Capitan Cr.	2.9	10/28/46	N. M. Ball Sons	Grading & Surfacing	400,589	35,474	436,063
1-5VC32-F	S.B., Ven.	2	H, G	See Ventura County							
5VC11	Santa Barbara	2	J	Bet. Sheffield Dr. & San Ysidro Rd.	1.3	4/ 1/47	N. M. Ball Sons	Grading & Surfacing	356,842	47,674	404,516
0-5VC24	Santa Barbara	2	J	Sheffield Dr. to San Ysidro Rd.	1.1	9/15/48	Baker & Follock	Grade, Surface, & 4 Bridges	136,816	19,500	*156,316
1-5VC28	Santa Barbara	2	L, A	Orcutt Wye to Santa Maria	2.0	6/30/49	Madonna Const. Co.	Grade & Surface	203,626	45,000	*248,626
51-5VVC1	Santa Barbara	2	L, N	At Orcutt Wye		8/18/50	Westates Electrical Const. Co.	Lighting	4,182	600	*4,782
5VC10	Santa Barbara	2	P	At Hollister Wye, Bet. Santa Barbara & Goleta		12/ 2/46	L. H. Leonardi Elect. Const. Co.	Signal Systems	19,312	922	20,234
5VC8	Santa Barbara	2	P, Q	At Hollister Wye, Bet. Santa Barbara & Goleta		6/27/46	Jesse S. Smith	Grading & Plant Mixed Surfacing	142,320	23,396	165,716
5VC5	Santa Barbara	2	Q, G	Bet. Fairview Ave. & Tecolote Cr.	4.7	10/ 3/45	Dimmitt & Taylor	Grading & Plant Mixed Surfacing	503,927	60,855	564,782

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
5VC6	Santa Barbara	2	Q	Bet. 0.25 Mi. W. of Rte. 80 & Fairview Ave.	3.7	1/ 7/46	Dimmitt & Taylor	Grading, P.M.S. & 2 Bridges	\$524,215	\$49,992	\$574,207
5VC21	Santa Barbara	2	Q, G	Hollister Wye to Tecolote Cr.	8.4	6/ 7/48	Baker & Pollock	Resurfacing	47,041	3,249	50,290
14VC27	Santa Barbara	2	SB	At Salspuedes St.	---	3/ 6/47	Macco Corporation	Overhead Substructure	228,644	20,249	248,893
14VC34-F	Santa Barbara	2	SB	S.P.R.R. at Salspuedes St.	---	8/21/47	Carl N. Swenson Co., Inc.	Overcrossing	520,485	22,962	543,447
5VC12-F	Santa Barbara	2	SB	0.2 Mi. E. of Park Pl. to Rancheria St.	2.2	5/16/47	N. M. Ball Sons.	Grade, Surface, & Bridge	889,688	83,242	972,930
51-5VC2	Santa Barbara	2	SB	Garden St. to Rancheria St.	0.7	4/29/50	Santa Barbara Craue Service	Remove & Replant Trees	6,237	1,600	7,837
1-5VVC3	Santa Barbara	2	SB	At Rancheria & Carillo Sts. and at Micheltorena & Mission Sts.	---	6/ 9/50	Westates Electrical Const. Co.	Signals & Lighting	30,614	3,000	*33,614
51-5VC6	Santa Barbara	2	SB	Bath St. to Junipero St.	2.3	9/14/50	N. M. Ball Sons.	Grade & Plant Mix Surface	105,303	16,700	*122,003
0-5VC20	Santa Barbara	56	A	Las Cruces to San Julian Cr.	6.5	5/25/48	N. M. Ball Sons.	Grade & Bit, Surf. Tr.	146,642	17,447	182,089
1-5VC27-P	Santa Barbara	56	B	Jalama Rd. to Rte. 149	4.3	4/20/49	Rand Const. Co., Inc.	Grade & Surface	293,365	52,000	*345,365
5DVC1-P	Santa Barbara	56	E	Black Rd. to Point Sal Rd.	5.5	3/16/48	Madonna Const. Co.	Grade, Surface & Structure	209,371	48,277	257,648
51-5VC3	Santa Barbara	57	D	4 Mi. E. Cuyama Maint. Sta. to 3 Mi. W. San Luis Obispo Co. Line	3.0	6/ 8/50	Rand Construction Co., Inc.	Road Mix Surface	28,446	5,900	*35,346
0-5VC30-P	Santa Barbara	148	SMra	Railroad Ave. to W.C.L. of Santa Maria	0.5	6/22/49	Madonna Const. Co.	Grade & Surface	57,794	10,000	*67,794
5X16	Santa Barbara	149	D	Bet. Mi. 0.00 & Mi. 2.60	2.6	3/20/47	Day Labor	Resurfacing	9,838	239	10,077
5DXC1	Santa Barbara	149	D	Bet. 2.6 Mi. E. of Buellton & Grand Ave.	2.3	4/29/47	Frank T. Hickey, Inc.	Grading & P.M.S.	119,741	18,538	138,279
-----	Santa Barbara	-----	-----	Various Locations	-----	-----	-----	Minor Contracts & D.L. Projects	58,755	-----	58,755
4TV58-P	Santa Clara	2	A, MVw	San Antonio Ave. to Saratoga Rd.	1.5	6/10/48	A. J. Rausch Paving Co.	Grade, Surface & Signals	235,143	23,637	258,780
4TV131	Santa Clara	2	A	Palo Alto to Sunnyvale	5.8	3/10/50	Day Labor	Subsealing	13,952	-----	*13,952
1-4TC74	Santa Clara	2	B	Ford Rd. to Morgan Hill	6.1	4/ 1/49	McGillivray Const. Co.	Resurface	105,919	20,000	*125,919
4T59	Santa Clara	2	B	0.5 Mi. N. of Coyote	---	3/31/47	Day Labor	Install Truck Scales	9,961	-----	9,961
51-4TC1	Santa Clara	2	B	3.3 Mi. S. of San Jose to Madrone	5.8	4/ 1/50	Leo F. Piazza	Plant Mix Surface	106,781	15,000	*121,781
1-4TC72	Santa Clara	2	C	Cornadero Cr. 1.8 Mi. S. of Gilroy	---	7/12/49	Dan Caputo	Construct R.C. Bridge	85,218	7,667	92,885
1-4TC72-F	Santa Clara	2	C	2.6 Mi. S. of Gilroy to 0.5 Mi. S. of Sargent overhead	3.1	12/ 7/49	Fredrickson & Watson Construction Co.	Grade, Surface, & Structure	625,283	95,500	*720,783
14TC2	Santa Clara	2	E	At Ford Rd. about 6 Mi. S. of San Jose	---	12/17/45	Earl W. Heple	Steel Undercrossing	39,621	10,837	70,458

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-4TC3	Santa Clara	2	E	At Coyote Cr. & Coyote Rd., about 6 Mi. S. of San Jose.	---	12/ 4/45	Earl W. Heple.	Steel Bridge & Undercrossing.	\$265,690	\$20,594	\$286,284
4T97-Y	Santa Clara	2	Gil	In Gilroy.	---	3/ 4/48	Day Labor.	Signals.	8,537	4,700	13,237
1-4TC102-F	Santa Clara	2	Gil, C	Gilroy to 2.6 Mi. S.	2.6	5/ 4/50	Fredrickson & Watson Construction Co.	Grade & Plant Mix Surface.	229,580	32,500	*262,080
1-4TTC9	Santa Clara	2	MgH	At Monterey St. & 2d St.	---	7/22/49	Howard Electric Co.	Signals.	9,619	2,500	*12,119
4T98	Santa Clara	2	MgH	Through Morgan Hill.	1.0	3/20/47	Day Labor.	Resurfacing.	8,964	323	9,287
4TC20	Santa Clara	2	SJs, E	Bet. San Jose & 0.6 Mi. S. of Ford Rd.	8.1	12/20/45	N. M. Ball Sons.	Grade & P.C.C. Paving.	1,281,376	104,853	1,386,229
0-4TTC6-P	Santa Clara	2	SCI	Bellomy St.	---	1/ 7/49	L. H. Leonardi Electric Const. Co.	Signals & Lighting.	11,988	853	12,841
0-4TTC8-P	Santa Clara	2	SCI	Intersection Clay St. with LaFayette St. & Grant with Franklin.	---	6/15/49	Severin Electric Co.	Signals & Lights.	15,836	1,313	*17,149
4TC37	Santa Clara	5	A	Bet. Alameda County Line & Milpitas.	1.0	5/16/47	A. S. Jones.	A.C. Surface & Cr. Run Base.	45,527	7,028	52,555
4T57	Santa Clara	5, 68	A, B	At Intersection of Oakland Rd. & Bayshore Hwy.	---	3/ 4/47	Day Labor.	Traffic Signals.	8,555	517	9,072
4T47	Santa Clara	5	B	At Bascom Ave. & Race St.	---	11/21/46	Day Labor.	Traffic Signals.	15,692	915	16,607
4TC28	Santa Clara	5	B, SJs	At Bascom Ave. & Park Ave.	1.3	7/10/46	Union Paving Co.	Grade & Pave.	181,888	36,214	218,102
4T136	Santa Clara	22, 32	A, B	At Don Pacheco Wye.	---	9/21/50	Day Labor.	Channelization & Lighting.	6,464	600	*7,064
4T113	Santa Clara	32	A	Furlong Creek.	---	9/ 8/48	Day Labor.	Detour.	6,359	---	6,359
0-14TC54	Santa Clara	32	A	Furlong Creek.	---	9/29/48	Dan Caputo.	R.C. Bridge.	6,709	1,376	8,085
4WC28	Santa Clara	32	C	About 1.25 Mi. W. of Merced Co. Line.	0.1	4/29/47	Granite Const. Co.	Grade & Surface.	11,532	1,818	13,350
1-4TC94-F	Santa Clara	32	C	Cape Horn to Merced Co. Line.	3.3	10/28/49	Eaton & Smith.	Grade & Plant Mix Surface.	886,565	111,000	*997,565
1-4TC93	Santa Clara	42	A	Bet. 0.3 Mi. S. of Saratoga Ave. in Saratoga & 1 Mi. S.	---	9/29/49	Dan Caputo & Ed Keeble.	Grade & Surface.	69,699	21,000	*90,699
51-4TC16-P	Santa Clara	68	A, B, SJs, C	Palo Alto to 3 Mi. S. of San Jose.	---	10/10/50	L. H. Leonardi Electric Construction Co.	Lighting System.	10,079	1,400	*11,479
4T62	Santa Clara	68	B, SJs	At McKee Rd.	---	4/17/47	Day Labor.	Signals & Lights.	7,483	339	7,822
4T96	Santa Clara	68	B	Amory Rd.	---	3/ 3/48	Day Labor.	Signals & Lighting.	9,331	646	9,977
0-4TC62	Santa Clara	68	B, SJs	Gibb Rd. to Rte. 5.	0.5	6/18/48	Oas. L. Harney, Inc.	Resurfacing.	69,516	6,123	75,639
51-4TC22	Santa Clara	68	B	At 4th St. Extension.	---	11/20/50	Edward Keeble.	Signals & Lighting.	19,281	3,600	*22,881

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
1-4TTC13-P	Santa Clara	68	B, SJs	At N. 1st Street	---	3/29/50	Dan Caputo	Signals & Lighting	\$29,222	\$1,500	*\$33,722
51-4TC11	Santa Clara	68, 114	B, A	At Mathilda Avenue	---	8/14/50	L. C. Smith Co.	Signals, Lighting, & Channelization	19,084	2,500	*21,584
4TC32	Santa Clara	68, 2	SJs	At Santa Clara St. Underpass in San Jose.	0.5	2/ 6/47	Huetting & Schromm	Landscaping	15,507	1,834	17,341
14TC11	Santa Clara	68, 2	SJs	On Bayshore Freeway at Santa Clara St.	---	4/ 1/46	Fredrickson & Watson Construction Co.	Separation Structure & Apprs.	402,703	49,770	452,473
4TC7	Santa Clara	68, 2	SJs	On Bayshore Freeway at Santa Clara St.	---	7/ 6/46	Day Labor	Maintain Detour	7,280	---	7,280
1-4TTC14	Santa Clara	114	A	Sunnyvale-Saratoga Rd. at Stevens Creek Rd.	---	5/10/50	Kurze Electrical Works	Signals & Lighting	9,911	2,800	*12,711
51-4TC25	Santa Clara	114	Sun	Mathilda Avenue	---	1/11/51	Edward Keeble	Grade & Plant Mix Surface	37,691	4,000	*41,691
14TT154	Santa Clara	115	A	White Rd. & Alum Rock Ave.	0.1	12/30/48	Day Labor	Signals & Lights	5,994	340	*6,334
4DC3	Santa Clara	FAS 992	---	On Leavesley & Ferguson Rds.	4.5	9/20/46	Granite Const. Co.	Grading and A.C. Paving	162,073	20,138	182,211
4DC4	Santa Clara	FAS 1000	---	On Stevens Cr. Rd.	0.4	12/30/47	Dan Caputo & Edward Keeble	Grading & Paving	59,565	5,705	65,300
4DC8	Santa Clara	FAS 1000	---	On San Jose-Stevens Cr. Rd.	3.5	8/29/47	A. J. Raich Paving Co.	Grade, P.M.S. & Widen 2 Bridges	192,285	23,500	215,785
4DC13	Santa Clara	FAS 1012	---	On Story Road Bet. McLaughlin & White Road	---	2/10/49	Leo F. Piazza	Grade & Surface	75,759	11,284	87,043
4DC5	Santa Clara	FAS 1159	---	On N. Fourth St. Bet. Rte. 68 & San Jose	1.2	3/11/47	Piazza & Huntley	Grade & Pave	60,535	5,961	66,496
---	Santa Clara	---	---	Various Locations	---	12/20/50	Leo F. Piazza Paving Co.	Minor Contracts & D.L. Projects.	55,423	499	55,922
51-4TMC19-P	Santa Cruz	5, 56	SCr	At Ocean & Water Sts.	---	6/15/49	Day Labor	Signals & Channelization	11,305	2,600	*13,905
4T118	Santa Cruz	56	A, E, SCr	Arana Gulch	---	6/12/50	Elmer J. Warner	Grade & Surface	15,000	---	15,000
51-4TC6	Santa Cruz	56	B	2.3 Mi. to 1.5 Mi. S. of Davenport	0.7	6/13/47	Eaton & Smith	Grade & Plant Mix Surface	103,255	14,000	*117,255
4WC30	SCr, SM	56	C, A	Waddell Creek to Finney Creek	1.4	1/21/49	Underground Const. Co.	Grade & Surfacing	444,314	51,325	495,639
0-4RTC1	SCr, SM	56	C, A	Waddell Creek to Finney Creek	1.3	---	---	Pipe Line	28,432	2,078	30,510

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
14WLC42	Santa Cruz	56	C	At Waddell Cr.	0.3	9/16/46	Granite Const. Co.	Bridge & Approaches	\$84,426	\$8,237	\$92,663
47C45-F	Santa Cruz	56	D, E, SCr	Rob Roy Junction to Morrissey Ave.	7.7	10/16/47	Earl W. Heple	Grade & Structures	1,448,177	160,000	*1,608,177
0-47C47-F	Santa Cruz	56	D, E, SCr	Bet. Rob Roy Jct. & Morrissey Ave.	7.7	4/1/48	N. M. Ball Sons	Grade & Surface	1,239,444	142,500	1,381,944
0-47C71	Santa Cruz	56	D, E, SCr	Bet. Rob Roy Jct. & Morrissey Ave.	7.7	9/17/48	Granite Const. Co.	Highway Lighting	23,071	2,250	*25,321
47I32	Santa Cruz	56	D, E, SCr	Rob Roy Junction to Morrissey Ave.	7.7	3/14/50	Day Labor	Signs, Stripes, & Markings	4,897	---	4,897
47I28	Santa Cruz	56	E	Southerly of Aptos Ave., Sta. 3+50 to 29+00	0.5	3/7/50	Day Labor	Outer Highway	15,000	---	15,000
1-47C100	Santa Cruz	56	SCr	In City of Santa Cruz	---	1/26/50	L. H. Leonardi Electric Const. Co.	Signals	9,274	1,800	*10,074
0-147C38	SCr, SBk	67	A, A	See San Benito County	---	---	---	---	---	---	---
51-147C7	Santa Cruz	116	A	At San Lorenzo River	---	5/18/50	Huetting, Schromm, & Bennett	Repair Bridges	11,878	3,000	*14,878
1-47C89	Santa Cruz	116	B	San Lorenzo River	0.1	7/7/49	Granite Const. Co.	Grade, Surface & Culvert	27,383	5,200	*32,583
51-47C30	Santa Cruz	116	B	About 0.5 Mi. Northerly of Boulder Creek	0.1	2/5/51	Granite Construction Co.	Grade & Drainage	13,783	1,500	*15,283
14DC40	Santa Cruz	FAS 1145	---	At Soquel Creek	---	7/28/48	Granite Const. Co.	Bridge & Approaches	80,281	978	81,259
14DC20	Santa Cruz	FAS 1146	---	On Green Valley Rd.	0.5	6/27/47	Granite Const. Co.	Grade, P.M.S. & Bridge	62,641	5,988	68,629
4DC15-P	Santa Cruz	FAS 1147	---	0.5 Mi. S. of San Andreas School to Mar-resa Beach	2.3	5/10/50	Edward Keeble	Grade, Pen. Treat. & Seal Coat	50,679	3,700	*54,379
---	Santa Cruz	---	---	Various Locations	---	---	---	Minor Contracts & D.I.L. Projects	55,299	---	55,299
0-27C25	Shasta	3	A	Cottonwood to Anderson	5.0	4/19/48	Fredrickson & Watson Const. Co.	Grade, Surface, & Bridge	637,237	42,880	680,127
0-27C35-P	Shasta	3, 20 FAS 1074, 1076	A, Rdg, C, A, B	---	---	---	---	---	---	---	---
1-27C30	Shasta	3	A	Bet. Redding & Fall River Mills (Portions)	22.7	6/6/49	Morgan Const. Co.	Seal Coat	29,167	3,760	32,927
---	---	---	---	Anderson to Clear Creek	5.8	4/15/49	Fredrickson & Watson Construction Co.	Grade, Surface, & Structures	790,965	100,400	*891,365
2741	Shasta	3	C, D	Bet. O'Brien's Summit & Shasta Co. Line	1.3	4/17/47	Day Labor	Resurfacing	9,440	209	9,649

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-2TC33	Sha-Sis	3	C, D, A, Dmr., MSha	Crespo's to Spring Hill	35.1	6/ 1/49	McGillivray Const. Co.	Resurface & Seal Coat	\$453,945	\$32,727	\$486,672
14TC28-P	Shasta	3, 20	Rdgr, C	Rte. 3 in Redding to 1.5 Mi. East		10/ 7/47	Fredrickson Bros.	Grade, Surface & Bridge	645,147	34,200	*679,347
51-2TC6	Sha, Sis, Plu	3, 21, 29	Var	At Various Locations	51	5/31/50	Morgan Construction Co.	Seal Coat	64,665	6,331	*70,996
2TC23-F 2TC13	Shasta	20	A	Towerhouse to Schilling	5.3	12/17/47	Fredrickson Bros.	Grade & Surface	616,825	52,427	669,252
2TC18	Shasta	20	A, B	See Trinity County							
			B	Bet. Shasta & Schilling	4.6	8/29/46	Harms Bros. & N. M. Ball Sons	Grading & Plant Mixed Surfacing	521,291	48,275	569,566
14WLC45	Shasta	20	C	Across Sacramento River at Redding		2/26/47	James I. Barnes Const. Co.	Bridge Substructure	285,713	16,918	302,631
51-2TC3	Shasta	20	C	Across Oak Run Creek Overflow		5/17/50	J. P. Brennan	Culvert & Approaches	9,027	2,310	*11,337
2TC2	Shasta	20	E	Across Smith Ditch		10/11/50	Day Labor	Replace Bridge	6,999		6,999
2TC29	Sha, Plu, Tri	21, 20	B, B, A	See Plumas County							
2TLC2	Shasta	28	A	At Seaman's Gulch about 1 Mi. W. of Ingot	0.8	11/20/45	A. A. Teslau & Son	Grading, Surfacing & Culvert	123,801	13,092	136,893
2TC16	Shasta	28	B	Bet. 4.5 Mi. E. of Ingot & Montgomery Cr.	9.7	4/22/46	W. C. Railing	Surface with P.M.S.	71,959	4,392	76,251
0-2TC27	Sha, Sis	28, 72	C, A	Two Locations	9.0	5/12/48	W. C. Railing	Base & Surface	133,769	15,783	149,552
0-2TC36	Shasta	28	C	6 Mi. W. of Burney	1.0	6/28/49	W. B. Jones	Grade & Surface	35,665	3,472	39,137
1-14TC73	Shasta	28	D	In Burney, Burney Creek		7/20/49	Metzger Co.	Const. Bridges & Approaches	96,884	11,184	108,068
2TC8	Sha, Las	28	E, A, B	Bet. Fall River Mills & 8.3 Mi. E. of Bieber	30.2	5/ 8/45	M. J. Ruddy & Son	Repair with P.M. Bit. Matl., Cement Treated Base & Seal Coat	203,243	28,357	231,600
2DC3	Shasta	FAS 1072		Bet. Cottonwood & Anderson	10.8	6/ 8/46	Oilfields Trucking Co. & Phoenix Const. Co.	Grading & Surfacing	235,822	20,148	255,970

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
2DC8	Shasta	FAS 1076		Fall River Mills to Dana	5.5	4/29/48	W. C. Railing	Grade, Base, & Seal Coat	\$183,052	\$21,254	\$204,306
	Shasta			Various Locations				Minor Contracts & D.L. Projects	46,963		46,963
3DC9	Sierra	FAS 524		Sierraville to 5.6 Mi. Northerly	5.6	7/13/48	Nevada Constructors, Inc.	Grade & Surface	110,516	16,666	127,182
	Sierra			Various Locations				Minor Contracts & D.L. Projects	1,568		1,568
2TC17	Siskiyou	3	A	At North Entrance to Dunsmuir		4/23/46	M. W. Brown	Correct Drainage	9,274	1,829	11,103
1-2TC32	Siskiyou	3	A	Spring Hill to Weed	4.4	4/15/49	Harms Bros. & F. Freudenburg	Grade & Structure	383,489	32,844	*416,333
0-2TC23	Sis. Sha.	3	A, Dmr, MSha	See Shasta County							
2TC15	Siskiyou	3	B	Bet. Weed & Yreka	20.4	4/ 1/46	Clements & Co. & Milo A. Browne	Repair with Imp. Base Matd. & P.M.S. Surfacing	183,289 141,947	16,424 12,979	199,683 154,926
0-2TC28	Siskiyou	3	B	Gazelle to 5.5 Mi. Nly.	5.5	6/18/48	Clements & Co.	Bridge & Underpass	348,820	30,065	378,885
14TC22-F	Siskiyou	3	C	Between Camp Lowe & Bailey Hill		5/16/47	Ted F. Baun	Grading	700,109	71,900	780,309
2TC22-F	Siskiyou	3	C	Camp Lowe to Bailey Hill	7.8	9/17/47	Frederickson & Watson Const. Co.	Plant Mixed Surfacing	29,966	31,022	*342,162
2T45	Siskiyou	3	C	Bet. Bailey Hill & State Line	1.6	5/12/47	Day Labor	Surfacing	303,782	38,410	
1-2TC31-F	Siskiyou	3	C	Camp Lowe to Bailey Hill	7.8	4/ 1/49	A. Teichert & Son, Inc.				
2TC14	Siskiyou	3	Yre, C	Bet. Yreka & Camp Lowe	13.3	3/25/46	Clements & Co.	Repair with C.R.B., P.M.S. & Seal Coat	178,838	12,707	191,545
51-2TC6	Sis. Sha, Plu.	3, 21, 26	Var	See Shasta County							
2WL19	Siskiyou	46	A	At Davis Mine Cut, Br. No. 2-60		4/28/44	Day Labor	R.C. Box Culvert	8,165	1,380	9,545
2WL20	Siskiyou	46	A	At Mine Spillway Br. No. 2-61		4/28/44	Day Labor	R.C. Box Culvert	6,800	1,193	7,993
2WL21	Siskiyou	46	A	At Steep Cr., Br. No. 2-62		4/28/44	Day Labor	R.C. Box Culvert	12,237	1,834	13,491
2WL22	Siskiyou	46	A	At Curley Jack Cr., Br. No. 2-59		4/28/44	Day Labor	R.C. Box Culvert	9,923	1,438	11,861
1-14TC67	Siskiyou	46	A	Clear Creek		5/21/49	G. M. Carr & Bati Rocca	Const. Bridges & Approaches	131,748	14,914	149,662
1-14TC59	Siskiyou	46	A	At Dillon Creek	0.3	4/ 1/49	G. M. Carr & Bati Rocca	Grade & Surface, Const. Bridges & Approaches	168,377	22,600	*190,977
2W10	Siskiyou	46	B	Bet. Happy Camp & Thompson Creek (Portions)	11.8	4/27/45	Day Labor	Grading, Surfacing & Drainage	59,990	975	60,965
2WC10	Siskiyou	46	B, C	Bet. Thompson Cr. & 4 Mi. E. of Seiad	11.9	7/15/47	W. C. Railing	Road Mixed Surfacing	59,280	6,278	65,538

COMPLETED CONTRACTS--June 30, 1951--Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
2T75	Siskiyou	46	B	Happy Camp to Cade Mountain (Portions)							
2T78	Siskiyou	46	C	At Scott River	4.2	5/ 2/49 6/28/49	Day Labor	Widen & Surface Repair Bridge	\$12,486 12,791		\$12,486 12,791
2W12	Siskiyou	46	D	Bet. Walker Bridge & Rte. 3	19.6	12/28/45	Day Labor	Widen Roadway & Restore Surfacing	79,922	\$4,295	84,217
0-2TC27 2WC9	Sis, Sha Siskiyou	72, 28 82	C, A D	See Shasta County Bet. Fort Jones & 2.2 Mi. E. of Moffett Cr.							
2DC5-P	Sis, Mod	210 FAS 753	A, B	See Modoc County	7.5	6/ 5/47	Sheldon Oil Co.	Plant Mixed Surf. & Shldrs.	49,770	4,507	54,277
2DC1	Siskiyou	FAS 753-A		Bet. Rte. 72.3 Mi. N. of Dorris, & 4 Mi. W. of Hatfield	15.6	5/29/46	Utah Construction Co.	Grade & Gravel & Cement Base	540,005	43,078	583,083
	Siskiyou			Various Locations				Minor Contracts & D.L. Projects	51,768		51,768
COFC4	Sol, C.C.	7	A, F	See Contra Costa County							
10T36 0-10TC35-F 0-10TC39	Solano	7	B B, C B, C	Bet. Rockville Rd. & County Hospital	4.0	10/29/46	Day Labor	Surface Shldrs.	17,764	887	18,651
	Solano	7		Leaveswood Cr. to 3.5 Mi. E. of Fairfield	4.7	8/2/48 9/27/48	Parish Bros. L. H. Leonard Electric Const. Co.	Grade, Pave & 2 Structures	1,217,813	95,000	*1,462,475
	Solano	7		Near Fairfield				Signals & Lighting	20,117	1,949	22,116
10TC18 10TC34	Solano	7, 90 7	C, Vac C	Bet. Fairfield & 3.5 Mi. N. of Vacaville	4.8	5/13/47 6/24/48	Fredrickson Bros. Harnis Bros.	Plant Mixed Surfacing	44,697	2,879	47,576
	Solano			E. of Fairfield to E. of Alamo Cr.	4.3			Grade, Pave, & Bridge	822,320	70,000	*892,320
51-10RTC1	Solano	7	C, D	At the "Nut Tree" & at Alamo Creek	0.7	3/ 9/51	Harnis Bros.	Frontage Road	31,245	3,600	*34,845
10TC9 1-10TC38	Solano	7 7, 6	D, I D, I, A, E, A	Bet. Midway & 1.3 Mi. N. of Dixon	6.1	1/17/46	Fredrickson Bros.	Grading, P.C.C. Pav. & Bridges	1,078,243	55,355	1,133,598
	Solano, Yolo			E. of Ulatis Cr. to W. of Yolo Causeway		5/12/49	Harnis Brothers	Widen Crossovers, Curbs, & Barrier	66,858	3,359	70,217
51-10TC4	Solano	7	D	Jct. of County Rd. to Vacaville to 2.5 Mi. North	2.4	4/11/50	Fredrickson Bros.	Widen & Plant Mix Surface	75,317	9,300	*84,617
10TC13 51-14TC15	Sol, Yolo	7	E, A E, A	Across Putah Cr. about 6 Mi. N. of Dixon		7/29/46 8/22/50	M. A. Jenkins Ben C. Gerwink, Inc.	Repair Bridge	9,469	1,896	11,365
COF-8	Sol, C.C.	7	F, A	See Contra Costa County				Repair Bridge	10,877	2,000	*12,877

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
10TC27-F	Solano	7, 74	F, G, D	Bet. Vallejo Wye & ½ Mi. N. of Rte. 208.	5.6	2/16/48	Parish Brothers	Grade, Pavé & Structures	1,168,008	130,000	*1,298,008
1-10TC53	Sol, Nap	7	H	See Napa County							
1-10TC36	Sol, Nap	7	H	See Napa County							
10RTC4	Solano	7	I	Milk Farm	0.3	6/28/48	Harnis Bros.	Grade & Surface	\$14,530	\$1,990	\$16,520
10T73	Solano	7, 6	I, A	At the "Milk Farm" & at Freese Corner		3/23/49	Day Labor	Chamnelization	9,197	900	*10,097
10TC21	Solano	7	Frfd	Bet. Madison St. & Union Ave.		6/ 7/47	Ed. Pierce Elec. Co.	Traffic Signals	8,908	964	9,872
10TC8	Solano	7	Vac, D	Bet. Ulaits Cr. & Midway	6.0	12/ 5/45	Fredrickson Bros.	Grading, P.C.C. Pav. & Bridges.	561,205	45,796	607,001
10W40	Solano	53	A, B	Bet. Suusun & Rio Vista		8/ 7/46	Day Labor	Repairing War Damage	60,162	2,899	63,061
14WLC47	Sol, Sac	53	C, A	Across Sacramento River at Rio Vista		4/21/47	C. M. Allen	Repair Bridge	9,296	1,084	10,380
10W42	Solano	74	C	Bet. Benicia Arsenal Grounds & Cordelia	8.7	8/19/46	Day Labor	Resurfacing	41,570	2,136	43,706
10T79	Solano	74	Val	At 4th St. & Lemon St.		3/14/50	Day Labor	Signals & Lighting	5,011		*5,011
10WC14	Solano	90	A	Bet. Rte. 7 & 0.5 Mi. N. of Sweeney Cr.	5.7	9/16/46	Fredrickson Bros.	Grade P.C.C. Pavé & 5 Bridges.	541,151	42,540	583,691
10W46	Solano	90	A	Bet. Allendale Jct. & Winters		10/18/46	Day Labor	Repair Shlds.	4,989	270	5,259
10W39	Solano	90	A	Bet. Allendale & Putah Cr. (Portions)	4.7	7/24/46	Day Labor	Resurfacing	15,983	791	16,774
14WLC54	Solano	99	A	Across Miner Slough		6/ 5/47	C. M. Allen	Widen Bridge	4,857	155	5,012
14TC26	Solano	99, 100	A, A	Cache Slough Ferry & Steamboat Slough Ferry		9/30/47	C. M. Allen	Three Ferry Ramps	7,337	1,160	8,497
10T78	Solano	101	A	S. Fork of Lindsey Slough		4/ 6/50	Day Labor	Replace Bridge with Culvert	6,970	1,000	*7,970
14WC5	Solano	208	A	Across Napa River at W. City Limits of Vallejo		3/ 1/46	Healy Tibbitts Const. Co.	Repair Bridge Fender	14,251	1,755	16,006
0-14TC48	Solano	208	A	Napa River		6/23/48	H. F. Lauritzen	Repair Bridge	5,704	453	6,157
1-14TC83	Solano	208	A	At Napa River Bridge near Vallejo		12/ 2/49	Crabbe Electric	Emergency Generator	7,116	609	7,725
51-14TC2	Solano	208	A	Napa River at W. City Limits of Vallejo		4/ 1/50	Payne Construction Co.	Repair Bridge	19,108	3,800	*22,908
51-14TC3	Solano	208	B	White Slough, 0.5 Mi. E. of Napa River Bridge		4/ 1/50	Lew Jones Construction Co.	RC Slab Bridge	60,099	9,400	*69,499

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
14DC8	Solano	FAS 1106 1108 1110		Access Pleasants Cr., Alamo Cr., & Tributary to Putah Cr.		4/ 4/47	G. M. Carr & Bati Rocca	Five Bridges	\$82,713	\$4,329	\$87,042
10DC16	Solano	FAS 1107 1108 FAS 1108		Vanden to Vacaville & Vacaville to Elmira	2.4	7/ 6/50	Fredrickson Bros.	Grade & Surface & Seal Coat	74,506	8,000	\$82,506
14DC44	Solano	FAS 1108 FAS 1108		Access Alamo Cr.		10/ 6/48	Wm. E. Thomas Const. Co.	Structures	16,323	2,093	18,416
10ANC12	Solano	Access	Val	On Waterfront Rd. Bet. Virginia St. & Santa Clara St.	0.3	2/ 4/46	C. M. Syar	Grading & A.C. Paving	31,421		31,421
	Solano			Various Locations				Minor Contracts & D.L. Projects	35,618		35,618
4TC63	Sonoma	1	A	Near Cloverdale		6/28/48	Stolte, Inc., & The Duncan-Harrelson Co.	Truck Scales	24,917	1,085	26,002
1-4TC85	Sonoma	1	A	Cloverdale to Healdsburg	4.8	5/19/49	A. G. Raisch Co.	Grade & Surface	153,760	24,500	*178,260
4TI29	Sonoma	1	A, B	Cloverdale to 2 Mi. N. of Santa Rosa	10.6	3/ 7/50	Day Labor	Subsealing	44,778		*44,778
4T60	Sonoma	1	B	Healdsburg to Santa Rosa	1.7	3/31/47	Day Labor	Resurfacing	29,271	156	29,427
0-4TC56	Sonoma	1	B, E, SRo	2 Mi. N. to 0.7 Mi. S. of Santa Rosa	4.3	5/20/48	Stolte, Inc., & The Duncan-Harrelson Co.	Grade, Pave & Structures	1,362,993	110,000	*1,472,993
4TC34	Sonoma	1	C	Bet. 3 Mi. N. & 1 Mi. S. of Petaluma	4.0	4/23/47	A. G. Raisch Co.	Surfacing	86,029	6,352	92,381
4TC21	Son. Mm.	1	C, A	Bet. 1 Mi. S. of Petaluma & Ignacio Wye	11.9	1/17/46	A. G. Raisch Co. & Harms Bros.	Grading, P.C.C. Pave & Struct.	1,643,187	156,847	1,800,034
0-4TC69	Sonoma	1	E, SRo	Thru Santa Rosa		8/10/48	H. S. Tuttle Company	Signals & Lighting	37,013	4,000	*41,013
4TI22	Sonoma	1	E, SRo	0.3 Mi. S. to 1.7 Mi. N. of Santa Rosa		10/18/49	Day Labor	Revise Signals	25,000	25,000	50,000
1-4TC91	Sonoma	1	E, SRo	Steele Lane to Baker Rd.	2.8	8/ 5/49	Stephen L. Vistica	Landscaping	34,540	6,400	*40,940
4T46	Sonoma	1	SRo	College Ave. & 5th St.		11/ 1/46	Day Labor	Purchase Signals	8,038	597	8,635
4TI25	Sonoma	8	B	15 Mi. E. of Marin-Sonoma Co. Line		12/14/49	Day Labor	Const. Retaining Wall	11,300	500	*11,800
51-14TC17	Sonoma	51	A	Santa Rosa to Kenwood		10/11/50	R. G. Clifford & C. O. Bodenhamer	Widen Bridges	79,773	8,800	*88,573

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-4TC75	Sonoma	51	C	Purple Draw & Laguna De Santa Rosa	0.3	3/15/49	A. G. Raish Co.	Widen Bridge & Culvert	\$57,528	\$8,250	\$65,778
4T112	Sonoma	56	C, D, E	Jenner to Gualala River	2.4	9/10/48	Day Labor	Grade & Surface	50,000	2,000	*\$2,000
4W30	Sonoma	56	E	At Various Locations		8/13/46	Day Labor	Improve Drainage	6,323		6,323
14TC33	Sonoma	208	A	Across Toley Cr. about 14 Mi. W. of Vallejo		11/29/47	Evans Const. Co.	Redeck Bridge	8,612	1,603	10,215
51-14TTC1	Sonoma	208	A	At Toley Creek		8/21/50	Thomas Rigging Co.	Alter Bridge	1,189	750	*1,939
14DC2	Sonoma	FAS 786		Across Russian River at Hacienda		9/13/46	Kiss Crane Co.	Steel & Concrete Bridge	123,197	2,268	125,465
14DC70-P	Sonoma	FAS 786		Across Hobson Creek at Hacienda		4/20/50	G. M. Carr & Bati Rocca	RC Bridge & Approaches	82,663	2,000	*84,663
14DC37	Sonoma	FAS 788		Jintown Bridge		6/16/48	C. B. Tuttle Co.	Const. Bridge & Approach	373,631	27,914	401,545
	Sonoma			Various Locations				Minor Contracts & D.L. Projects	89,503		89,503
0-10TC31	Sta, Mer	4	A, B, A, C	See Merced County							
51-10TC11	Stanislaus	4	A	Turlock to Keyes		10/ 3/50	B. Gould & Son	Signals & Lighting	20,325	2,400	*22,725
1-10TC34-F	Stanislaus	4	A	Turlock to Keyes	4.9	8/25/49	United Concrete Pipe Corp.	Concrete Pipe	473,363	59,000	*532,363
51-10TC6	Sta, Mer	4	A, Cer, B, C, D, Livtn	See Merced County				Grade, Pave, & Structures			
14TC21	Sta, S.J.	4	B, A	Across Stanislaus River		4/25/47	Fredrickson & Watson Const. Co.	Steel Bridge	352,697	13,913	366,610
1-10TC46	Sta, S.J.	4	B, A, Rip, C	Bet. Salida & 1 Mi. N. of Ripon & Bet. Calaveras River & Lodi	11.9	4/ 1/49	Henry C. Soto Corp.	Landscape	17,114	1,774	18,888
10TC15	Sta, S.J.	4	B, A, Rip	Bet. Salida & 1 Mi. N. of Ripon		7/15/46	A. Teichert & Son, Inc.	Grading & Paving	434,113	59,161	486,274
10TC34	Sta, S.J.	4	B, A, Rip	Bet. Salida & 1 Mi. N. of Ripon	4.5	10/20/47	Evans Const. Co.	Barrier Posts & Guard Rail	9,501	1,773	11,674
1-10TC44	Sta, Mer	4	D, A, Cer, B	See Merced County							

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
10TC22	Stanislaus	4	Cer	On Fourth St. in Ceres	---	6/10/47	L. H. Leonardt Elect. Const. Co.	Signals	\$14,007	\$1,794	\$15,801
10CG6	Stanislaus	4	Tur	Between Olive St. and Marshall St.	---	5/12/48	Collins Elec. Co.	Signals	6,905	618	7,523
1-10TC63-P	Stanislaus	4	Tur	Geer Ave. to N. City Limits of Turlock	0.2	6/14/50	United Concrete Pipe Corp.	Widen & Plant Mix Surface	17,839	2,100	*19,939
51-10TC2	Stanislaus	13	A, Rybk, A, Okdl, B	Jet. Rte. 109 to 1 Mi. E. of Oakdale	11.2	4/ 1/50	Munn & Perkins	Widen & Plant Mix Surface	212,486	22,727	*235,213
0-10TC32	Stanislaus	13	B	1.3 Mi. E. of Oakdale to 1.8 Mi. W. of Tuo. Co. Line	9.6	4/28/48	M. J. Ruddy & Son	Grade & Surface	202,165	24,200	*226,365
10TL1	Stanislaus	13	B	At Wildcat Creek	0.4	6/27/47	Biasotti Const. Co.	Grade & Culvert	46,820	4,684	51,504
0-10TC29	Stanislaus	41	A, B	Newman to San Joaquin County Line	6.2	4/ 1/48	M. J. Ruddy & Son	Grade & Surface	140,606	8,375	148,981
1-10TC35	Stanislaus	41	B, Pat	At Patterson	0.5	8/31/49	H. Sykes	Grade & Surface	28,750	6,443	*35,193
0-10TM7	Stanislaus	66	Okdl	"D" St. to "B" St.	0.2	8/30/48	M. J. Ruddy & Son	Surfacing	13,806	---	13,806
51-10TC13	Stanislaus	110	B	At Modesto Irrigation District Lateral No. 4	0.3	10/19/50	M. J. Ruddy & Son	Widen Bridge, Grade, & Surface	24,627	5,600	*30,227
10TC19	Sta, Mer	110, 4	C, D	See Merced County	---	---	---	---	---	---	---
10DC14-P	Stanislaus	FAS 904	---	Oakdale to Waterford	9.5	7/ 3/50	United Concrete Pipe Corp.	Widen & Surface	103,888	2,900	*106,788
14DC17	Stanislaus	FAS 912	---	Across Tuolumne River about 6 Mi. E. of Modesto	---	5/22/47	Erickson, Phillips, & Weisberg	R.C. Bridge	145,656	1,332	146,988
10DC3	Stanislaus	FAS 912	---	Empire to Hughson	0.9	4/22/48	Louis Biasotti & Co.	Grade & Surfacing	34,165	935	35,100
10DC6	Stanislaus	FAS 915	---	San Joaquin River 4.5 Mi. NE. Crows Landing	0.6	6/16/49	Karl C. Harmeling	Grade & Surface	34,364	334	34,698
14DC38	Stanislaus	FAS 915	---	San Joaquin River 4.5 Mi. E. Crows Landing	---	6/21/48	Bos Const. Co.	Const. R.C. Bridge	172,026	1,903	173,929

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
51-10DC1-P	Stanislaus	FAS 916, 914		Turlock to Crows Landing Rd. & Monte Vista Ave. to Turlock	9.0	7/13/50	United Concrete Pipe Corp.	Widen & Surface	\$91,000	\$2,900	*\$93,900
51-10DC2	Stanislaus	FAS 917		Modesto to 5.4 Mi. Westerly	5.4	7/20/50	United Concrete Pipe Corp.	Widen & Surface	71,000	2,600	*73,600
0-3TC51P	Stanislaus			Various Locations				Minor Contracts & D.L. Projects	18,495	200	18,695
1-3TC69	Sut. But.	3	A, LiO, A, Grd	Lomo to Fagan & in Gridley	7.1	4/ 1/48	McGillivray Const. Co.	Surfacing	91,513	4,068	95,581
3TC40	Sut. But.	3	A, LiO, A	2.5 Mi. S. Live Oak to Gridley		11/18/49	L. Bormolini & Son	Improve Drainage	41,220	6,800	*48,020
3TC42	Sut. Yub.	3	LiO, A	At Live Oak	1.7	10/ 8/47	McGillivray Const. Co.	Grade & Surface	166,346	22,156	188,502
3TC47	Sut. Yub.	3	Y.C, Mvl	See Yuba County							
3TC28	Sut. Yub.	3	Y.C, Mvl	See Yuba County							
14TC5	Sut. Yub.	3	Y.C, Mvl	See Yuba County							
14TC30	Sutter	87	B	Sutter Bypass N. of Knights Landing		10/23/47	Wm. S. Shedd.	Repair Bridge	21,318	1,551	22,869
3W40	Sutter	87	B	Sutter Bypass to Tudor Road	2.0	9/30/47	Day Labor	Grade Shoulders	6,999		6,999
3TC18	Sut. Yub.	87, 3	B, A, B	See Yuba County							
51-3TC8	Sutter	87	B	On Sutter Causeway	1.0	7/15/50	Rice Bros. Inc.	Plant Mix Surface	14,808	1,900	*16,708
51-3TC1	Sutter	87	B	Tudor Rd. to Lincoln Rd.	5.6	4/ 1/50	Rice Bros., Inc.	Plant Mix Surface	96,846	10,800	*107,646
14DC46	Sutter	FAS 926		Cross Canal		11/22/48	Lord & Bishop	Const. Bridge	117,849	10,588	128,437
3DC19	Sutter	FAS 926		Niclaus Bridge to Tudor	7.3	9/15/49	A. Teichert & Son, Inc.	Resurface	65,883	2,000	*67,883
3DC13	Sutter	FAS 926		Sacramento Co. Line to S. of Striplin Road	7.9	2/17/49	P. J. Moore & Son & Harnas Bros.	Grade & Seal	246,029	20,000	*266,029
	Sutter			Various Locations				Minor Contracts & D.L. Projects	2,060		2,060

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
2TC13	Tehama	3	C	Bet. 6 Mi. N. of Red Bluff & Shasta Co. Line	7.1	1/21/46	Oilfields Trucking & Phoenix Const. Co.	Grading & Plant Mixed Surf.	\$539,402	\$66,106	\$605,508
2TC19	Tehama	3	D	Bet. Mill Race Cr. & Red Bluff	2.8	4/ 2/47	Morrison - Knudsen Co., Inc.	Grading & Plant Mixed Surf.	140,290	16,759	157,049
14TC8	Tehama	3	D	Across East & West Sand Sloughs, Sampson Slough, Paynes Cr., Salt Cr. & Salt Cr. Overflow		1/22/46	J. D. Proctor, Inc. & Dragline Rentals Co.	Const. 5 Bridges & Widen 2 Bridges	366,313	36,444	402,757
51-2TC4	Tehama	7	A, B, Cug, B	S. Boundary of Tehama Co. to Proberta.	20.6	4/28/50	McGillivray Construction Co.	Widen Shoulders, Surface, & Widen Bridges	412,795	50,600	*463,395
2TL15	Tehama	29	A	At Ramsey Cr., Br. No. 8-53		4/ 2/46	Day Labor	Repair Bridge	6,542	270	6,812
2TL16	Tehama	29	A	At Flopper Cr., Br. No. 8-54		6/ 3/46	Day Labor	Repair Bridge	9,832	269	10,101
2TL17	Tehama	29	A	At Dehaven Gulch, Br. No. 8-55		9/10/47	Day Labor	Repair & Reconstruct Deck	11,392	220	11,612
2WL27	Tehama	29	D, E	At Dry Creek & Salt Creek		4/24/47	Day Labor	Repair Bridges	11,700		11,700
14WLC58	Tehama	29	E	Across S. Fork Cottonwood Cr.		8/28/47	C. M. Allen	Repair Bridge	12,682	859	13,541
1-14TC77	Tehama	29	E	South Fork of Cottonwood Creek		9/ 8/49	Evans Const. Co.	Repair Bridge	13,905	1,582	15,487
14DC27	Tehama	FAS 1078 1082		Thomess Creek & Reed Creek		10/ 3/47	G. M. Carr & Bati Rocca	2 Bridges & Approaches	180,617	16,877	198,494
14DC46	Tehama	FAS 1078 1081 1083		Various Locations		10/19/48	O'Conner Bros.	Const. 3 Bridges & Approaches	267,140	23,089	290,229
51-14DC1	Tehama	FAS 1078		At Mill, Willow, & McCarty Creeks		8/30/50	H. W. Ruby	Bridges & Approaches	109,497	11,000	*120,497
14DC52	Tehama	FAS 1080		Elder Creek $\frac{1}{2}$ Mi. S. of Gerber		8/12/49	Transocean Engr. Corp.	Const. Bridge	55,262	7,300	*62,562
	Tehama			Various Locations				Minor Contracts & D.L. Projects	13,933		13,933

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
2DC6	Trinity	20, FAS 1089	A	Rte. 20 to Browns Mtn. & at E. Weaver Cr.	6.5	6/30/47	N. M. Ball Sons.	Culvert & Surface.	\$269,686	\$34,700	*\$304,386
2TC29	Tri, Phu, Sha.	20, 21	A, B, B	See Plumas County							
2T43	Tri, Sha.	20	B, A	Bet. 1.4 Mi. E. of Buckhorn Maint. Sta. & 4.74 Mi. E. of Trinity Co. Line.	6.45	4/17/47	Day Labor.	Resurfacing.	30,356	1,469	31,825
1T66	Trinity	20	C	Sta. 0+00 to Sta. 355+00		10/11/48	Day Labor.	Oiling.	10,000		10,000
1T65	Trinity	20	C, D	Willow Cr. to Whites Bar (Portions)	15.2	7/1/48	Day Labor.	Grade & Surface.	255,135	18,203	273,338
1W22	Trinity	20	C, D	Bet. New River Bluffs & Cedar Flat.		10/9/45	Day Labor.	Bituminous Surfacing.	11,455	307	11,792
41W10	Tri, Hum.	20	C, D, D	See Humboldt County							
1T65	Tri, Hum.	20	C, D	See Humboldt County							
1T69	Tri, Hum.	20	C, D	See Humboldt County							
1T79	Trinity	20	C, D	S. Fork of Trinity River to White's Bar Creek.	15.6	8/9/50	Day Labor.	Oiling.	13,988		13,988
14WLC31	Trinity	29	A	Across Hayfork Cr. about 58 Mi. W. of Red Bluff.		5/17/46	C. C. Gildersleeve.	Bridge.	9,582	1,028	10,610
1T68	Trinity	35	B	Peanut to Hayfork.	5.9	3/11/49	Day Labor.	Grade & Surface.	14,999	575	15,574
14WLC55	Trinity	35	C	At Redding Cr.		6/12/47	C. C. Gildersleeve.	Widening Bridge.	19,020	1,204	20,224
2DC10	Trinity	FAS 1089		Rte. 20 to Brown's Mountain.	6.3	8/25/48	Morgan Const. Co.	Seal Coat.	13,594	1,348	*14,942
	Trinity			Various Locations				Minor Contracts & D.L. Projects.	19,897		19,897
14VC29	Tulare.	4	A	At White River Sink.		3/5/47	Wheeler Const. Co.	Bridge & Approaches.	31,264	4,732	35,996
6XC13	Tul, Kor.	4, 33	A, D	Bet. Delano & 2.5 Mi. S. of Earlimart & 2.1 Mi. E. of Wasco & Famoso.	8.3	4/10/47	Griffith Company.	Plant Mixed Surfacing.	84,588	6,529	91,117
6VC3	Tulare.	4	B, E, F	Bet. Quail Sta. & 6.5 Mi. N. of Goshen.	13.5	4/13/45	Brown, Doko & Baum.	Plant Mixed Bit. Material.	110,714	12,176	122,890
6V14	Tulare.	4	B, E, F	Bet. Rte. 127 & 9.5 Mi. N. of Goshen.		3/19/46	Day Labor.	Restore Oiled Borders.	15,910	229	15,910

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
0-6VC27	Tulare	4	B	1 Mi. S. of Tipton to Tulare Airport.	7.9	8/ 3/48	N. M. Ball Sons.	Grade & Structures	\$598,844	\$61,042	\$659,886
0-6VC35-F	Tulare	4	B	1 Mi. S. of Tipton to Tulare Airport.	7.8	6/ 1/49	N. M. Ball Sons.	Pave.	650,202	78,000	*728,202
1-6VVC4	Tulare	4	B	At 6th St. in Tipton		4/29/50	L. H. Leonard Electric Construction Co.	Signals & Lighting	13,026	1,410	*14,436
6TC11P	Tul. Fre.	4	E, D, Kugb, A	Mendocino Ave. to 1/4 Mi. N. of Kingsburg.		2/27/48	Tri-Cities Elec. Serv.	Signals & Lighting	27,235	2,034	29,269
6TC8P	Tul. Fre.	4	E, D, Kugb, A	See Fresno County							
6VC9	Tulare	4	E	Bet. 3.6 & 0.4 Mi. S. of Kingsburg.	3.0	6/ 7/46	Valley Paving & Const. Co., Inc.	Repair with P.M.S. & Seal Coat.	33,725	4,785	38,510
1-6VC39	Tulare	4	F	Bet. 0.5 Mi. S. of Tagus & Rte. 10.	2.9	9/15/49	Geo. E. France, Inc.	Resurface	48,177	6,131	54,308
6VC22	Tulare	4	F	Bet. 0.5 Mi. S. of Tagus & Rte. 10.	5.0	6/18/48	Guy F. Atkinson Co.	Grade, Pave & Structure	789,670	84,394	874,064
51-6VC3-P	Tulare	10, 132	B Vis, Vis	At Mooney Blvd.		7/26/50	Westates Electrical Construction Co.	Signals & Lighting	18,454	2,100	*20,554
51-6VC7-P	Tulare	10	Vis	At Conyer Street		11/ 8/50	Clinton Electric Corp.	Signals & Lighting	5,285	600	*5,885
1-6VC41	Tulare	10	Vis, C	Visalia to Venida Sub-station	8.1	3/24/50	Griffith Co.	Plant Mix Surface	99,756	15,000	*114,756
6XC10	Tul. Ker.	129	A, A, B	See Kern County							
0-6VC23	Tul. Ker.	129	A, A, B	See Kern County							
1-14VC89	Tulare	129	B	Bet. Deer Cr. & Deer Cr. Ditch.		7/ 7/49	Thomas Const. Co.	Const. Bridge & Culvert	61,061	7,986	69,047
6X22	Tulare	129	D	Bet. Cairn's Corners & 4.4 Mi. Northerly.	4.4	3/20/47	Day Labor	Resurfacing	28,074	189	28,263
14XC20	Tulare	129	E	At Yokohl Cr.		3/24/47	R. M. Price Co.	Bridge & Approaches	89,154	9,408	98,562
51-6VC10	Tulare	129	Priv	At Morton Street		12/13/50	Clinton Electric Corp.	Signal System	3,990	700	*4,690
1-6VC31	Tulare	132	A	Rte. 134 to Packwood Cr.	5.8	4/ 1/49	Valley Paving & Const. Co., Inc.	Surfacing	52,495	6,026	58,521
6XC12	Tulare	132	A, Vis	Bet. Packwood Cr. & Rte. 10.	2.3	3/24/47	R. M. Price Co.	Grade & Plant Mixed Surf.	219,489	16,294	235,783
0-14VC87	Tulare	133	A	St. Johns River, 4 Mi. NE. Visalia	1.2	6/ 7/49	Anderson Co.	Surface & Const. Bridge	146,550	17,004	163,554

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
6DC11	Tulare	FAS 1126		FAS Rte. 1129 to State Rte. 134	8.0	6/29/48	Geo. E. France, Inc.	Grade & Bit. Surf. Tr.	\$145,191	\$9,004	\$154,195
14DC32	Tulare	FAS 1126 1137		Bet. 3 & 15 Mi. S. of Visalia (Portions)		12/ 9/47	Trehwitt, Shields & Fisher	4 R.C. Bridges	47,578	3,827	51,405
6DC8	Tulare	FAS 1128		Bet. 4 Mi. & 6.5 Mi. W. of Porterville		11/29/47	F. Gunner Gramatky	I.B. & Plant Mixed Surfacing	51,497	2,421	53,918
14DC23	Tulare	FAS 1128		Across Tule River		7/23/47	Trehwitt, Shields & Fisher	R.C. Bridge	127,206	4,221	131,427
6DC6	Tulare	FAS 1129 1130		Bet. 2 Mi. W. of Woodville & Poplar	8.0	7/23/47	F. Gunner Gramatky	Widen & Plant Mixed Surf.	183,226	6,306	189,532
14DC14	Tulare	FAS 1130		Across White River about 7 Mi. SE. of Earlimart		5/16/47	E. H. Peterson & Son	R.C. Slab Bridge	15,136	374	15,510
14DC15	Tulare	FAS 1136 1138		Across St. Johns River		5/12/47	Northup Const. Co.	R.C. Bridges	133,697	3,737	137,434
1-6DC23-P	Tulare	FAS 1137		State Rte. 134 to 6 Mi. N.	6.0	2/23/50	Geo. E. France, Inc.	Grade & Road Mix Surface	128,652	5,191	*133,843
51-6DC5-P	Tulare	FAS 1137 1138		FAS 1143 to Rte. 10 & Rte. 10 to Rte. 133	3.0	12/ 9/50	Rice Bros., Inc.	Grade, Surface & Structure	186,208	5,700	*191,908
14DC28	Tulare	FAS 1140		At St. Johns River		10/10/47	Charles MacClosky Co.	Reconstruct Existing Bridge	65,621	4,931	70,552
14DC41	Tulare	FAS 1140		Across Peoples Ditch		8/11/48	Trehwitt, Shields & Fisher	Steel Bridge	34,190	4,596	38,786
1-14DC56-P	Tulare	FAS 1140		Bet. Kaweah River & Kalchum Ditch about 10 Mi. NE. of Visalia		9/29/49	C. B. Tuttle Co.	Const. Bridge & Culvert	50,696	470	51,166
14DC19	Tulare	FAS 1142		Across Kings River about 5.5 Mi. W. of Dinuba		6/ 4/47	Carl N. Swenson Co., Inc.	R.C. Girder Bridge	190,875	5,581	196,456

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
51-6DC1-P	Tulare	FAS 1142		Dinuba to Orosi	4.8	8/18/50	Oilfields Trucking Co. & Phoenix Construction Co., Inc.	Grade & Plant Mix Surface	\$108,188	\$6,400	*\$114,588
	Tulare			Various Locations				Minor Contracts & D.L. Projects	31,057	996	32,053
1-10TC59	Tuolumne	13	B	Monteruma Rd. to 1 Mi. S. of Jancetown	1.7	12/ 2/49	Geo. E. France, Inc.	Grade & Plant Mix Surface	202,521	29,545	*232,066
10TC16	Tuolumne	13	Sra	In Sonora on Stockton St.	0.4	1/24/47	Beerman & Jones	Grading & Plant Mixed Surf.	79,299	16,767	96,066
14TC34	Tuolumne	40	A, B	Tuolumne River at Stevens Bar	0.2	12/26/47	Elmer J. Warner	Bridge & Approaches	176,403	15,463	191,866
	Tuolumne			Various Locations				Minor Contracts & D.L. Projects	18,442		18,442
7VC83	Ventura	2	C	1.1 Mi. W. of Montalvo		6/29/48	Jesse S. Smith & A. A. Edmondson	Scales & Approaches	47,755	3,673	51,428
7VC30	Ventura	2	C, Ven	Bet. Montalvo & Ventura	3.4	2/ 4/47	J. E. Haddock, Ltd.	Grading & Paving	601,139	63,453	664,592
7VC32	Ventura	2, 9, 79	C, A, Ven	At Inter. of Ventura Blvd. with Telephone & Telegraph Rds.		3/24/47	L. H. Leonardi Elect. Const. Co.	Traffic Signals	36,485	1,523	38,008
7VC61	Ventura	2, 60	C, B	Jct., Rte. 2 & Rte. 60 near El Rio	1.3	2/20/48	Smith-Edmondson Co.	Surfacing	169,552	22,654	192,206
7VC69	Ventura	2, 60	C, B	Jct., Rte. 2 & Rte. 60 near El Rio		3/29/48	Tri-Cities Elec. Serv.	Signals	21,628	1,408	23,036
1-7VC121	Ventura	2	C	Montalvo to Ventura	1.8	6/ 1/49	Baker & Pollock	Surface	56,670	6,647	63,317
51-7VC18	Ventura	2	C, Ven	Montalvo to Ventura	3.0	11/ 8/50	Stephen L. Vistica	Roadside Development	5,352	700	*6,052
7VC84	Ventura	2	F	Seacliff to Mussel Shoal	1.2	6/29/48	Clyde W. Wood, Inc.	Grade & Surface	1,117,122	76,831	1,193,953
1-5VC32-F	Ven, S.B.	2	G, H	0.2 Mi. E. of Ventura Co. Line to 0.2 Mi. E. of Carpinteria	2.5	10/11/49	Granite Construction Co.	Grade & Plant Mix Surface	692,751	97,511	*790,262
7VC77	Ventura	2	Ven	In Ventura		6/11/48	Tri-Cities Elec. Serv.	Signals	38,779	2,048	40,827
51-7VC2	Ventura	2	Ven	In Ventura, E.C.L. to St. Jon Road	1.3	4/ 1/50	Griffith Co.	Surface	32,735	5,000	*37,735
52-7VC1	Ventura	9	A	Rte. 2 to Santa Clara River	3.9	4/ 2/51	Conrad Construction Co., Inc.	Plant Mix Surface	39,507	5,000	*44,507
7V153	Ventura	9	C	At Santa Susana Pass	0.89	11/ 2/49	Day Labor	Widen & Resurface	34,766	1,457	36,223
7V63	Ventura	60	A	Bet. Oxnard & Big Sycamore		3/25/47	Day Labor	Road Repairs	8,344		8,344

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
7VC36	Ventura	60	A	Bet. Oxnard & Big Sycamore Cr.	5.7	5/ 5/47	Baker & Pollock	Resurfacing with P.M.S.	\$57,190	\$5,202	\$63,392
0-7VC129	Ventura	60	B	Oxnard Blvd.		6/28/49	Tri-Cities Electrical Service, Inc.				
0-14VC74	Ventura	60	B	0.5 Mi. W. of El Rio		11/ 5/48	Grant L. Miner	Signals & Lighting	11,687	1,507	*13,194
0-7VC126	Ventura	60	B, Oxn	Rte. 2 to Oxnard	2.1	6/18/49	Griffith Co.	Widen Underpass	122,345	14,542	136,887
7VMC24	Ventura	60	Oxn	On Oxnard Blvd. in Oxnard		4/22/48	Elec. & Mach. Serv., Inc.	Grade & Pave	238,518	35,800	*274,318
1-7VC142	Ventura	60	Oxn	N. City Limits to S. City Limits of Oxnard	1.9	1/ 3/50	Baker & Pollock	Signals	11,536		11,536
1-7VC145	Ventura	60	Oxn	At Saviers Wooley Road		1/30/50	Westates Electrical Construction Co.	Grade & Pave with A.C.	269,763	35,000	*305,763
7X48	Ventura	79	A	Bet. Sta. 486 & Sta. 513	0.5	2/21/46	Day Labor	Signals & Lighting	12,542	1,250	*13,792
7XC34	Ventura	79	A	Ellsworth, Barranca & Santa Paula	4.0	5/ 9/47	O'Brien & Bell Const. Co.	Improve Drainage	5,194		5,194
1-7VC123	Ventura	79	A	Wells Road to Ellsworth Barranca	1.4	6/ 7/49	C. J. B. Const. Co.	P.M.S. & Shldr.	23,927	1,191	25,118
1-7VC124	Ventura	138	A	2.5 Mi. to 6.4 Mi. N. Ventura City Limits	4.0	6/ 6/49	Frank T. Hickey, Inc.	Widening & Resurface	33,486	4,310	37,796
7XL14	Ventura	138	B	N. Fork Matilija Cr., Br. No. 52-173		5/16/46	Day Labor	Grade & Surface	92,765	10,800	103,565
7V136	Ventura	138	B	Matilija Creek	0.2	10/22/48	Day Labor	Replace Bridge	30,526	1,412	31,938
7V100	Ventura	138	Yen	In Ventura, Bet. Main St. & North City Limits	0.65	1/17/48	Day Labor	Const. R.C. Bridge	59,540	4,228	63,768
1-7VC119	Ventura	153	B	Rte. 2 to Rte. 9	4.1	5/26/49	Frank T. Hickey, Inc.	Resurfacing	7,935		7,935
7DC3	Ventura	FAS 868		On Pleasant Valley Rd., & Wood Rd., Bet. Ventura County R.R. & Ventura Blvd.	6.5	6/26/47	Frank T. Hickey, Inc.	Resurface	28,511	7,432	35,943
7DC1	Ventura	FAS 877		On Las Posas Rd., Bet. State Hwy. Rte. 2 & State Hwy. Rte. 153	4.3	12/ 6/46	MacDonald & Kruse, Inc.	Plant Mixed Surf.	154,539	14,419	168,958
3WC7	Ventura			Various Locations				Surfacing	68,575	6,042	74,617
1-3TC71	Yolo	6, 99	A, B	Bet. 1 Mi. E. of Davis & Swingle & Bet. 2.25 Mi. N. of Arcade Sta. & Jct. Rte. 6	7.3	5/21/46	A. Teichert & Son, Inc.	Minor Contracts & D.L. Projects	74,047	5,182	79,229
51-5TC5	Yolo	6	B	On Yolo Causeway	3.1	2/11/50	Grason Electric Co.	Repair with P.M.S. & C.R.B.	31,525	4,500	*36,025
	Yolo	6	B	South Half of Yolo Causeway	2.6	6/22/50	Brighton Sand & Gravel Co.	Lighting	14,485	2,100	*16,585
								Plant Mix Surface			

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
51-3TC11	Yolo	6	C	Jefferson Blvd. to Park Blvd.	0.4	9/14/50	Brighton Sand & Gravel Co.	Plant Mix Surface	\$9,829	\$1,550	*\$11,379
3798	Yolo	6	C	Sta. 701± to Sta. 749±	0.8	7/6/50	Day Labor	Reprocess Surfacing	14,312	215	*14,527
51-14TC22	Yol. Sac	6	C, Sac	Across Sacramento River		11/28/50	A. Teichert & Son, Inc.	Curbs	8,404	1,500	*9,904
1-10TC48	Yol. Sol.	6	E, A	See Solano County							
3WC12	Yolo	7, 87	A, A	Bet. 1.9 Mi. N. of Solano Co. Line & 1.6 Mi. S. of Woodland & Bet. 0.3 Mi. & 3.9 Mi. N. of Woodland	4.9	6/18/47	McGillivray Const. Co.	Plant Mixed Surfacing	45,613	2,282	47,895
3WC10	Yolo	7, 87	A, Wd, A	Bet. 1.25 Mi. N. of Solano Co. Line & Woodland & Bet. 3.75 Mi. N. of Woodland & 1 Mi. S. of Knights Landing	9.2	4/16/47	McGillivray Const. Co.	P.M.S. & Seal Coat	87,174	7,553	94,727
14TC13	Yol. Sol.	7	A, E	See Solano County							
0-3TC48	Yolo	7, 87	A, B, Wd, A	Putah Cr. to Zamora & Woodland to Knights Landing	24.6	4/10/48	Nunn & Perkins	Grade & Surface	45,792	5,445	51,237
3780	Yolo	7	A	S.P. Crossing at Mullen		1/13/49	Day Labor	Improve Crossing	5,653	670	6,323
1-14TC70	Yolo	7	A, B, C	Putah Creek to Colusa Co. Line		7/1/49	Grant L. Minor	Construct & Widen Structures	148,518	18,135	*166,653
51-14TC15	Yol. Sol.	7	A, E	See Solano County							
3TC25	Yolo	7	B, C	Bet. Cache Cr. & Dunnigan	14.0	5/21/46	Fredrickson Bros.	Repair with P.M.S. & C.R.B. & Place Imp. Borrow on Shldr.	153,896	10,552	164,448
1-3TC68	Yolo	7	B, C	At Zamora	1.2	8/2/49	Fredrickson Bros.	Grade & Surface	133,118	13,300	*146,418
3TC65	Yolo	7	C	Bet. Cache Cr. & Dunnigan	10.9	4/17/47	Day Labor	Prime & Seal Shldr.	11,194	57	11,251
1-3TC61	Yolo	7	C	Bet. Zamora & Hershey	0.7	5/11/49	O'Connor Bros.	Const. 2 R.C. Culverts & Apprs.	44,446	7,150	*51,596
14W1C32	Yolo	50	C	Saltroyer & Salt Creeks							
3WC13	Yolo	50	E	At Tule Canal about 6 Mi. E. of Woodland	0.1	6/25/46	M. A. Jenkins	Bridge & Approaches	87,102	9,317	96,419
3WC13	Yolo	50	E	At W. Side of Yolo By-pass	0.1	7/28/47	H & D Const. Co.	Grading & Surfacing	33,813	3,808	37,621
3TC53	Yolo	50	F	N. End of Sacramento Wier	0.2	5/27/48	A. Teichert & Son, Inc.	Grade & Surface	14,797	2,131	16,928
3TC101	Yolo	50	Wd, E	East St. to the Yolo By-pass		2/8/51	Day Labor	Subsealing	4,340		*4,340

DEPARTMENT OF PUBLIC WORKS

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
3WC8	Yolo	87	A	Bet. Woodland & Knights Landing	9.5	6/26/46	Folsom & Drollinger	Crusher Run Base Borders	\$35,221	\$2,313	\$37,534
1-14TC63	Yolo	87	A	Sacramento River at Knights Landing		4/ 1/49	B. S. McEllderry	Repair Bridge	34,393	2,222	36,615
1-3TC59	Yolo	90	A, B	Winters to Rte. 7	16.1	4/19/49	McGillivray Const. Co.	Bituminous Surface Treat. & Imp. Borrow	123,490	13,500	*136,990
3WC11	Yolo	99	A	Bet. Solano Co. Line & 2 Mi. S. of Irrigation Canal	8.9	5/15/47	McGillivray Const. Co.	Construct Shldrs.	27,665	1,282	28,947
14DC7	Yolo	FAS 1154 1152		Across Moody Slough & Across Cache Cr.		3/ 7/47	Chittenden & Chittenden	Two Bridges	74,252	4,078	78,330
14DC39	Yolo	FAS 1155		Cache Creek		8/ 9/48	Chas. T. Brown Co.	Reconstruct Bridge	71,471	6,040	77,511
3DC8	Yolo	FAS 1156		Rte. 99 to Clarksburg	4.5	5/ 6/48	A. Teichert & Son, Inc.	Grade & Pen. Tr.	93,351	4,236	97,587
14DC31	Yolo	FAS 1158		Knights Landing Ridge Cut Canal		11/17/47	Chittenden & Chittenden	Timber Trestle Bridge	50,243	3,863	54,106
	Yolo			Various Locations				Minor Contracts & D.L. Projects	13,499		13,499
3T43	Yuba	3	A	At Grasshopper Slough Overflow		4/22/46	Day Labor	Replace Timber Structure with C.M.P. Culvert & Fill	5,344		5,344
1-3TC65	Yub. Pla.	3	A, B	See Placer County							
3TC18	Yub. Sut.	3, 87	B, A, B	On Rte. 3 Bet. Morrison's Crossing & Linda Corners, Bet. Yuba City & Lomo, & on Rte. 87, Bet. Sutter By-pass & Tudor Rd.	12.2	6/ 4/45	Lester L. Rice	Repair with Imp. Bor. & P.M. Bit. Matl.	100,700	5,463	106,163
0-14TC98	Yuba	3	B, Mv1	Across Yuba River		6/ 7/49	Underground Const. Co.	Repair Bridge	99,658	2,098	101,756
3TC28	Yub. Sut.	3	Mv1, Y.C.	Bet. D St. Bridge in Marysville & Rte. 15 in Yuba City	2.0	6/22/46	Lester L. Rice	A.C. Surfacing	671,738	55,995	727,733
14TC5	Yub. Sut.	3	Mv1, Y.C.	Bet. I St. in Marysville & Market St. in Yuba City	0.9	12/19/45	J. H. Pomeroy & Co., Inc.	Bridge & Approaches	1,853,359	84,327	1,937,686
3TC47	Yub. Sut.	3	Mv1, Y.C.	"D" St. Bridge to Live Oak Road	2.0	2/17/48	Huetting & Schromm	Landscaping	38,885	8,200	*47,085

COMPLETED CONTRACTS—June 30, 1951—Continued

Contract number	County	Route	Section	Location	Miles	Contract date	Contractor	Type of work	Const. cost	Const. engr.	Total
3TC42	Yub. Sut.	3	Mvl, Y.C.	"D" St. Bridge to Rte. 15 in Yuba City	-----	11/ 5/47	Tri-Cities Elec. Serv.	Signals & Lighting	\$83,160	\$3,561	\$86,721
1-3TC72-P	Yuba	3, 15	Mvl	At 10th & "E" Sts. & on 9th St. bet. "E" & "B" Sts.	0.3	5/11/50	Rice Bros., Inc.	Plant Mix Surface	19,555	2,250	*21,805
14WLC37	Yuba	87	A	At Simmerly Slough	-----	7/11/46	Lord & Bishop	Timber Bridge	13,641	1,135	14,776
51-3TC7	Yuba	87	A	Marysville to Butte Co. Line	0.7	7/ 6/50	Rice Bros., Inc.	Grade, Surface, & Structure	30,797	4,000	*34,797
3DC10	Yuba	FAS 526	-----	N. of Stanfield Hill to S. of French Town Road	4.1	10/ 6/48	A. R. McEwen	Penetration Treatment & Seal	179,410	18,646	198,056
14DC21	Yuba	FAS 921	-----	Plumas School to FAS Rte. 922	1.2	9/10/47	H. Earl Parker, Inc.	Grade, Imp. Bor. & 2 Bridges	91,079	12,262	103,341
-----	Yuba	-----	-----	Various Locations	-----	-----	-----	Minor Contracts & D.L. Projects	16,100	500	16,600

INCOMPLETE CONTRACTS

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
1-4TC105-F	Alameda	5	B	1.5 Mi. W. of Livermore to Hopyard Road	5.9	5/31/50	Fredrickson & Watson Const. Co.	Grade, Pave, Structures, & Lighting	\$762,231
15T7	Ala, SF	5.68	Oak, SF	See San Francisco County					
51-4TC17-F	Alameda	69	C, SLn, Oak	Lewelling Bldg. to 0.1 Mi. N. of South City Limits of Oakland	4.2	10/26/50	Fredrickson & Watson Const. Co. and M & K Corp.	Grade, Pave, & Structures	3,048,385
52-4TC2	Alameda	69	Ber, Alb	Ashby Ave. to El Cerrito Overhead	2.4	4/17/51	Lee J. Immel	Grade & Pave	121,480
4T141	Alameda	69	Emv, Ber	Powell St. to University Ave.		11/14/50	Day Labor	Widen	9,000
51-4TC21	Alameda	69	Oak	38th Ave. to Fallon St.	2.8	11/ 8/50	Justice-Dunn Co.	Roadside Development	100,000
4T126	Alameda	69	Oak	South City Limits to High St.	3.3	1/12/50	Day Labor	Signs, Stripes, & Markings	6,800
4T115	Alameda	69	Oak	Sta. 205+24 to Sta. 358+50		3/15/49	Day Labor	Directional Signs	1,000
4T127	Alameda	69	Oak	At 42d Ave. Interchange & High St. Overhead		3/ 2/50	Day Labor	Signs, Stripes, & Markings	13,000
4T142	Alameda	69	SLn	Washington Ave. to Clarke St.		11/22/50	Day Labor	Storm Drain	17,000
4T147	Alameda	75	Oak	MacArthur Blvd. to Broadway Terrace		6/15/51	Day Labor	Grade & Pave	260,000
4T146	Alameda	105	Oak	7th St. at Webster St. & Grove St. and E. 14th St. at 86th Ave.		5/21/51	Day Labor	Signals	6,000
51-4TC33	Alameda	108	Lvnr	At "J" Street		4/20/51	Howard Electric Co.	Signals	3,581
51-14TC28-F	Alameda	226	Ala	Across San Leandro Bay		4/25/51	The Duncanson-Harrelson Co. and Stolte Inc.	Bridge	1,719,708
13T3	Alameda	227	Oak	Rte. 75 near Lake Temescal to Rte. 5		7/24/50	Joint Highway District No. 26	Grade, Pave, & Structures	300,000
	Alameda			Various Locations				Minor Contracts & D.L. Projects	44,650
1-10TC58	Alpine	34	A, B	Westerly Boundary to Carson Pass	5.4	10/28/49	Johnston Rock Co.	Grade & Surface	316,448
	Alpine			Various Locations				Minor Contracts & D.L. Projects	7,840
51-10TC9	Amador	34	H	Silver Lake to Alpine Co. Line	3.6	8/17/50	Harms Bros.	Grade & Surface	246,851
52-14TC8-F	Ama, E, D.	65	A, C	Across Costumes River		6/15/51	Thomas Const. Co.	Bridge	206,057

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length, miles	Contract date	Contractor	Type of work	Allotment
51-14TC27	Amador	97	B	At Dry Creek	0.5	4/18/51	Lefever & Bing	Bridge & Approaches	\$81,182
	Amador			Various Locations				Minor Contracts & D.L. Projects	3,440
52-3TC5	Butte	3	B	Biggs Road to Oroville Wye	5.4	6/ 6/51	Rice Bros., Inc.	Plant-mixed Surfacing	171,550
51-14TC10	But. Teh.	3	D, A	Between Chico and Los Molinos		6/14/50	O'Connor Bros.	Widen	187,823
3T103	Butte	3, 47	Chc	At Intersections on Main St. & Broadway		4/25/51	Day Labor	Illumination	8,000
51-3TC10	Butte	45	A	Biggs Road to Rte. 3	2.0	8/ 9/50	Eugene G. Alves	Grade & Base	48,017
52-14TC1	Butte	87	B	Across Clear Creek		4/ 2/51	R. C. Downer	Bridge & Approaches	51,259
51-3DC3-P	Butte	FAS 759		Oroville to Oroville-Quincy Highway at Ward Blvd.	3.3	8/18/50	Rice Bros., Inc.	Grade & Plant-mixed Surfacing	137,000
51-14DC10-P	Butte	FAS 1,169		Under Tracks of the SPRR & the WPRR & at High Sierra Pine Mills		6/15/51	C. K. Moseman	Structures	239,700
	Butte			Various Locations				Minor Contracts & D.L. Projects	2,810
51-10TC8	Calaveras	24	E	Murphys to Big Trees	5.6	6/10/50	M. J. Ruddy & Son	Grade & Surface	354,863
10T76	Calaveras	65	A	At Murray Creek		8/15/49	Day Labor	Detour, Signs, & Stripe	5,080
52-3TC1	Colusa	15	B	Colusa to Meridian	6.9	4/ 2/51	Harns Bros.	Widen & Surface	150,750
	Colusa			Various Locations				Minor Contracts & D.L. Projects	3,350
1-4TC101-F	Contra Costa	75	F, Pit	Port Chicago Road to Pittsburg	4.5	3/ 3/50	Parish Bros.	Grade, Surface, & Structure	882,048
4T144	C. C., Son	75, 1, 101	WIC, B, A, B, C	See Sonoma County					
51-4TC35	Contra Costa	106	A	Luzon Underpass to Christie Underpass	3.1	5/24/51	Lee J. Immel	Grade & Plant-mixed Surfacing	134,417
51-14TC24	Contra Costa	107	A, WIC	Across Walnut Creek		12/21/50	H. H. Anderson	Widen	42,108
51-4DC4	Contra Costa	FAS 609		7.1 Mi. E. of Clayton to 12.4 Mi. W. of Byron	0.5	5/14/51	Louis Bissotti & Son	Grade & Surface	88,100

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
	Contra Costa			Various Locations					
51-1TC3-F	Del Norte	71	A, B	Smith River Bridge to $\frac{1}{4}$ Mi. N. of Winton Corners	4.7	4/12/50	N. M. Ball Sons	Minor Contracts & D.L. Projects	\$37,020
52-1TC1-F	Del Norte	71	A, B	Smith River Bridge to N. of Winton Corners	4.7	4/ 2/51	Mercer, Fraser Co. & Mercer, Fraser Gas Co., Inc.	Grade & Construct Bridge	434,158
51-3TC12-F	El Dorado	11	D, E	Railroad Crossing to Five Mi. Terrace	2.0	10/26/50	H. Earl Parker, Inc.	Surfacing	216,925
52-14TC4	El Dorado	11	K	Across Upper Truckee River & Trout Creek		6/ 2/51	H. W. Ruby	Grade & Plant-mixed Surfacing	304,388
52-14TC5	El Dorado	23	A	At Echo Creek		6/ 6/51	H. W. Ruby	Reconstruct Bridges	53,481
52-14TC8-F	E, D, Ama	65	C, A	See Amador County				Bridge	46,176
51-3TC17	El Dorado	65	Pier	At Intersection of Coloma, Spring, & Mill Sts.		6/12/51	Joe Chevreux	Widen	4,651
51-3DC2	El Dorado	FAS 1,095		Bell Ranch to 1.5 Mi. Southeasterly	1.5	8/10/50	John G. Mehren	Grade & Seal Coat	51,000
	El Dorado			Various Locations				Minor Contracts & D.L. Projects	6,230
51-6TC5	Fresno	10	A, B	2 Mi. E. of Monterey Co. Line to 0.2 Mi. E. of Hot Springs Canyon Road	3.4	10/26/50	John F. Blakemore	Surface & Structure	198,591
1-6TC19	Fresno	41	T	Orange Cove Road to White Deer Road	5.4	11/ 1/49	R. A. Heintz Const. Co.	Grade & Bit. Surf. Treatment	474,305
6T24	Fresno	41	Fre	At Ventura Ave. & South First St.		6/29/51	Day Labor	Signals & Channelization	4,800
6T23	Fresno	125	Fre	At McKinley, Clinton, & Shield Aves.		1/ 5/51	Day Labor	Signals	5,000
51-6DC3-P	Fresno	FAS 561		Rte. 4 to Fruit Ave.	3.3	11/18/50	Gene Richards	Grade, Surface, & Structure	123,222
51-6DC2	Fresno	FAS 808		Sacramento Ave. to Glenn Ave.	5.0	8/30/50	Volpa Bros.	Grade & Bit. Surf. Treatment	110,000
51-14DC4-P	Fresno	FAS 817		Across Kings River		11/22/50	Thomas Const. Co.	Widen	108,039
51-6DC7-P	Fresno	FAS 817		Zediker Ave. to Kings River Bridge	3.0	3/ 7/51	Baum Const. Co.	Grade & Plant Mixed Surfacing	100,700
6TT26	Fresno	Var	Fre	In Fresno		8/ 9/49	Day Labor	Signals	18,167

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
	Fresno			Various Locations				Minor Contracts & D.L. Projects	\$21,975
52-3TC9	Glen	7	B	1.1 Mi. South of Walker Creek to Walker Creek	1.1	6/21/51	C. V. Kenworthy	Grade & Plant Mixed Surfacing	149,033
	Glen			Various Locations				Minor Contracts & D.L. Projects	2,650
51-1TC10	Humboldt	1,35	E, F, A	Robinson Ferry Bridge to Alton Grade Crossing	4.4	11/ 1/50	Fredrickson Bros.	Grade, Surface, & Structures	1,052,673
51-1TC11	Humboldt	1, 20	I, A, B	At Junction with Korbel Road		6/15/51	Mercer, Fraser Co. & Mercer, Fraser Gas Co., Inc.	Truck Scales & Approaches	45,210
52-14TC-F	Humboldt	1	Arc	Over Burns Freeway at 11th & 14th Streets		6/20/51	Mercer, Fraser Co. & Mercer, Fraser Gas Co., Inc.	Bridges & Approaches	298,372
52-1TC3	Humboldt	1	Trnd, J	Trinidad to 2.8 Mi. Northerly	2.8	5/21/51	Mercer, Fraser Co. & Mercer, Fraser Gas Co., Inc.	Grade & Surface	162,582
51-14TC29	Humboldt	20	B	At North Fork of Mad River		6/15/51	G. M. Carr, Bati Rocca, & John Burman & Sons	Bridge & Approaches	385,000
52-14TC6	Humboldt	35	B	At Grizzly Creek		6/13/51	G. M. Carr & Bati Rocca	RC Bridge	27,316
1T83	Humboldt	35	B, C, D	Van Duzen River to Trinity Co. Line	2.06	3/ 7/51	Day Labor	Widen & Surface	27,500
1T81	Humboldt	84	B	19.2 Mi. N. of Willow Creek		1/ 5/51	Day Labor	Redeck Bridge	7,500
1-1DC12	Humboldt	FAS 975		0.7 Mi. E. of Fortuna City Limit to Hydenville	3.3	7/ 7/50	Mercer, Fraser Co. & Mercer, Fraser Gas Co., Inc.	Grade & Road Mixed Surfacing	90,000
	Humboldt			Various Locations				Minor Contracts & D.L. Projects	17,935
52-11VC3-P	Imperial	27	ECn	1st St. to East City Limits	0.5	5/14/51	Anderson Co.	Widen & Surface	85,032
52-11VC4	Imperial	Var	Var	At Various Locations	46.0	5/22/51	Basich Bros. Const. Co. and N. L. Basich and R. L. Basich	Plant Mixed Surfacing	509,102
	Imperial			Various Locations				Minor Contracts & D.L. Projects	13,098

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
52-9VC2	Inyo	23	B, D	Division Creek to Aberdeen & Keough Hot Springs to Steven's Corner	6.0	4/ 2/51	Verna MacArthur	Surface	\$28,795
52-9VC1	Inyo	23, 76	C, Bis	Rte. 63 to 1.3 Mi. N. & Main St. to W. City Limits	1.8	4/ 2/51	G. W. Ellis Const. Co.	Surface & Drainage Facilities	106,167
52-9VC5	Inyo	76	B	At Bishop Creek		5/ 2/51	Conrad Const. Co.	Culvert	14,700
	Inyo			Various Locations				Minor Contracts & D.L. Projects	1,000
1-6VC43-F 7V173	Kern, L.A.	4	A, D, J	2.5 Mi. S. of Rte. 59 to Fort Tejon	11.4	6/26/50	N. M. Ball Sons	Grade, Pavé, & Structures	1,802,910
51-7VC43	Kern, Ven, L.A.	4, 2	A, F, A, D, J	See Los Angeles County					
1-6VC42	Kern	4	C	0.6 Mi. S. of McKittrick Road to Hoskins Road	5.6	5/ 5/50	N. M. Ball Sons	Grade & Pavé	838,345
1-6VC44	Kern	4	C	At Panama Road & Houghton Road		5/24/50	Clinton Electric Corp.	Signals & Lighting	15,313
1-6VC45-F	Kern	4	E, F	Famoso Underpass to McFarland	5.8	6/22/50	Griffith Co.	Grade, Pavé, & Structures	797,707
51-6BC1-F	Kern	57	F, G	S. Boundary Sequoia National Forest to 2.5 Mi. SW. of Democrat Springs	5.3	6/23/51	Norman I. Fadel	Grade & Bit. Surf. Treatment	138,052
51-6VC6	Kern	57	H	Democrat Springs to Bodfish	15.5	10/23/50	Dimmitt & Taylor and T. M. Page	Widen, Surface, & Structure	390,119
52-9VC4	Kern	57	J	Weldon to Bloomfield Ranch	4.0	4/25/51	Oilfields Trucking Co. & Phoenix Const. Co., Inc.	Surface	31,418
52-6VC2	Kern	58	D	4.4 Mi. E. of Svert to 2 Mi. W. of Bear Mountain Ranch	7.1	4/ 2/51	Oilfields Trucking Co. & Phoenix Const. Co., Inc.	Plant Mixed Surfacing	164,903
51-14BC1-F	Kern	139	A	Across Goose Lake Slough		5/ 9/51	Tumblin Co.	Bridge & Approaches	54,423
51-6VC2-Y	Kern	142	F	Isabella Dam to Rte. 57	1.9	7/26/50	Dix-Syl Const. Co., Inc.	Grade, Surface, & Structure	233,267
51-6VC13-Y	Kern	142	F	4.5 Mi. NW. of Isabella to Isabella Dam Site	4.6	6/30/51	Hess Const. Co., Inc.	Grade, Surface, & Structure	808,955
14DC75-P	Kern	FAS 886		Across Kern River		11/10/50	Madonna Const. Co.	Bridge	80,857
	Kern			Various Locations				Minor Contracts & D.L. Projects	26,421

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-14DC6-P	Kings	FAS 568		Across Kings River		12/22/50	Chas. S. Moore & Robert R. Murdoch	Bridge	\$70,854
	Kings			Various Locations				Minor Contracts & D.L. Projects	3,900
51-1TC6	Lake	15	A	0.4 Mi. W. to 0.7 Mi. E. of Tule Lake	1.4	4/19/50	M. W. Brown	Grade & Road Mixed Surfacing	208,129
52-14TC9-F	Lake	49	C	Across Siegler & Cache Creeks		6/28/51	Tumblin Co.	RC Bridges & Approaches	153,601
	Lake			Various Locations				Minor Contracts & D.L. Projects	6,715
52-2TC1	Lassen	73, 29	A, E	Doyle to Constantia		4/ 2/51	Harms Bros.	Replace Bridges with Culverts	83,806
51-2DC1-P	Lassen	FAS 988		Grasshopper Valley to Hayden Hill Road	12.8	9/26/50	W. H. O'Hair Co.	Grade & Road Mixed Surfacing	287,585
51-2DC2-Y	Lassen	FAS 988		State Creek to Grasshopper Valley Ranch	1.8	2/14/51	W. H. O'Hair Co.	Grade & Road Mixed Surfacing	41,897
	Lassen			Various Locations				Minor Contracts & D.L. Projects	7,000
51-7VC13-F	L.A. Ven.	2	C, A	0.2 Mi. E. of Ventura Co. Line to 1 Mi. W. of Moorpark Road	7.1	8/30/50	Fredericksen & Kasler	Grade & Plant Mixed Surfacing	891,391
51-7VC23-F	Los Angeles	2, 166	D, A	Eastman Ave. to 0.1 Mi. Westerly of Atlantic Blvd.	1.1	11/27/50	Winston Bros. Co.	Grade, Pave, & Structures	1,188,316
51-7VC48	Los Angeles	2, 166	D, A	Eastman Ave. to LaVerne Ave. & Eastland Ave. to Todd Ave.		4/25/51	Fischbach & Moore of Calif., Inc.	Lighting & Signs	72,636
7V158	Los Angeles	2	L.A.	Virgil Ave. to Glendale Blvd.	1.6	3/29/50	Day Labor	Signs, Stripes, & Markings	15,500
7V159	Los Angeles	2	L.A.	Glendale Blvd. to Grand Ave.	1.2	5/18/50	Day Labor	Signs, Stripes, & Safety Devices	7,000
7V165	Los Angeles	2	L.A.	Virgil Ave. to Western Ave.	1.7	1/ 3/51	Day Labor	Signs, Stripes, Markings, & Safety Devices	10,000
51-14VC19-F	Los Angeles	2	L.A.	Cahuenga Blvd. to Gower St.	0.6	5/31/51	Winston Bros. Co.	Grade, Pave, & Structures	1,740,598
51-7VC51	Los Angeles	2	L.A.	Parkman to Grand		5/23/51	James E. Boothe	Plant Ground Cover	40,355
51-14VC11-F	Los Angeles	2	L.A.	At Van Ness Ave.		11/27/50	J. E. Haddock Ltd.	Bridges	328,716
51-7VC26	Los Angeles	2	L.A.	Beaudry Ave. to Grand Ave.	0.4	12/22/50	Jannoch Nurseries	Roadside Development	49,255
51-14VC18-F	Los Angeles	2	L.A.	Cahuenga Blvd. Undercrossing		3/20/51	Oberg Bros. Const. Co.	Bridge	294,109
1-7VC155-F	Los Angeles	2	L.A.	Western Ave. to Virgil Ave.	1.7	5/11/50	Griffith Co.	Grade & Pave	1,562,892
51-7VC25	Los Angeles	2	L.A.	Western Ave. to Virgil Ave.		12/13/50	Fischbach & Moore of Calif., Inc.	Lighting & Signs	63,203

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length, miles	Contract date	Contractor	Type of work	Allotment
1-14VC101-F	Los Angeles	2	L.A.	At Sunset Blvd.		5/25/50	Lars Oberg	Bridge	\$311,813
1-14VC102-F	Los Angeles	2	L.A.	At Fountain Ave.		6/2/50	Oberg Bros. Const. Co.	Grade, Pav., & Structure	328,526
1-7VC159	Los Angeles	2	L.A.	Western Ave. to Hobart Blvd.		6/29/50	J. E. Haddock, Ltd.	Pump Plant & Storm Drains	132,236
1-14VC104-F	Los Angeles	2	L.A.	At Wilton Place		6/29/50	George W. Peterson & Jack W. Baker	Bridge	319,692
51-7VC29	Los Angeles	2	L.A.	Virgil Ave. to Beaudry Ave.	2.3	1/11/51	Jannoch Nurseries	Roadside Development	54,574
51-14VC13	Los Angeles	2	L.A.	Holly Drive Undercrossing		1/19/51	George W. Peterson & Jack W. Baker	Bridge	303,744
51-14VC14-F	Los Angeles	2	L.A.	At Hollywood Blvd.		2/20/51	Fredericksen & Kasler	Bridge	349,401
51-14VC21-F	Los Angeles	2	L.A.	At Bronson Ave. & at Gower St.		6/20/51	George W. Peterson & Jack W. Baker	Bridges	964,981
51-7VC34-F	Los Angeles	2	L.A.	Grand Ave. to Los Angeles St.	0.5	1/26/51	Webb & White	Grade, Pav., & Structure	958,679
7V178	Los Angeles	2	L.A.	Alameda & Aliso Sts. to Los Angeles River		5/21/51	Day Labor	Storm Drains	1,148,700
51-7VC42-P	Los Angeles	2	Hill St., L.A.	Sunset Blvd. to 200' S. of Temple St.	0.5	4/2/51	Webb & White	Grade & Pav.	212,610
1-7VC157	Los Angeles	4	A, G	2.2 Mi. N. of Castaic Creek & at Palomas Wash.		5/23/50	Electric & Machinery Service, Inc.	Lighting	6,534
1-7VC144-F	Los Angeles	4	A, G	0.4 Mi. S. of Castaic Creek to 0.4 Mi. N. of Palomas Wash.	5.1	2/1/50	Basich Bros. & Basich Bros. Const. Co. & W. C. Lefever & D. Gerald Bing		
1-7VC153	Los Angeles	4	H, I, J	Frenchman's Flat to 0.5 Mi. N. of Alamos Creek	5.3	5/5/50	A. Teichert & Son, Inc.	Grade, Surface, & Structures	844,821
7RVV4	Los Angeles	4	J	Alamos Creek to Rte. 59		5/10/51	Day Labor	Grade & Plant Mixed Surfacing	2,007,068
7V173	L.A. Ker	4	J, D, A	2.5 Mi. S. of Junction Rte. 59 to Fort Tejon	11.4	4/13/51	Day Labor	Crossovers	15,000
1-6VC43-F	L.A. Ker	4	J, D, A	See Kern County				Signs, Stripes, & Safety Devices	5,800
51-7VC43	L.A. Ker, Ven	4, 2	J, D, A, F, A	Various Locations		3/29/51	Electric & Machinery Service, Inc.	Lighting	29,034
7V179	Los Angeles	4	L.A.	Big Tujunga Wash.		6/15/51	Day Labor	Widen Bridge	104,400
51-7VC36-F	Los Angeles	4	L.A., F	N. City Limits of Los Angeles to Pico Canyon	5.1	2/5/51	Claude Fisher Co., Ltd.	Grade & Pav.	1,138,198
7V149	Los Angeles	9	Pas	Santa Anita Ave. to Sierra Madre Villa		7/1/49	Day Labor	Widen, Pav., Structures, & Signals	234,000
51-14VC20	Los Angeles	26	D, L.A.	On Murphy St.		5/31/51	J. E. Haddock, Ltd.	Bridge & Ramp	207,397

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-7VC54	Los Angeles	26	D, L.A. Alh	Helen Drive to 8th St.	—	6/28/51	Electric & Machinery Service, Inc.	Lighting & Signs	\$91,889
51-7VC38-F	Los Angeles	26	Alh, D, L.A.	0.2 Mi. E. of Helen Drive to Hellman Ave.	1.5	2/ 9/51	J. E. Haddock, Ltd.	Grade, Pave, & Structures	1,958,924
51-7VC50-F	Los Angeles	26	Alh	Hellman Ave. to 8th St.	0.9	6/28/51	Griffith Co.	Grade, Pave, & Structures	1,422,107
7V157	Los Angeles	26	L.A., D	Evergreen Ave. to Helen Drive	—	3/23/50	Day Labor	Signs, Stripes, & Signals	8,150
51-7VC46	Los Angeles	60, 156	B, A	At Topanga Canyon Blvd.	—	4/24/51	Westates Electrical Const. Co.	Signals & Lighting	12,393
7V177	Los Angeles	60	LBeh	Various Locations	—	5/21/51	Day Labor	Signals & Lighting	9,250
52-7VC5	Los Angeles	60	L.A.	Vermont Ave. to Figueroa St.	0.6	4/ 2/51	Warren Southwest, Inc.	Plant Mixed Surfacing	62,055
52-7VC9	Los Angeles	60	L.A.	S. City Limits of Los Angeles to Washington Blvd.	0.3	6/ 5/51	Oswald Bros. Co.	Widen & Plant Mixed Surfacing	21,550
7V160	Los Angeles	61	C, D	Angeleno Crest Highway	—	6/29/50	Day Labor	Grading	426,000
52-7VC7-P	Los Angeles	77	SGb	At Isabel & at Walnut	—	5/16/51	Clinton Electric Corp.	Signals	6,398
51-7VC52-P	Los Angeles	158, 174	B, CIC, B	At Various Intersections	—	6/15/51	C. D. Draucker, Inc.	Signals & Lighting	21,716
7V167	Los Angeles	161	B+ b	At Keystone St., Reese Place, Mariposa St., & Main St.	—	1/ 5/51	Day Labor	Signals	3,400
51-14VC16	Los Angeles	161	Pas	San Rafael Ave. to Orange Grove Ave.	0.7	3/16/51	Guy F. Atkinson Co.	Structures & Approaches	3,599,872
52-7VC8	Los Angeles	164	Ing, L.A., A	Freeman Blvd. to Sepulveda Blvd.	1.5	5/23/51	Oswald Bros. Co.	Grade & Plant Mixed Surfacing	194,727
51-14VC4-F	Los Angeles	165	L.A.	At 4th St.	—	8/24/50	W. J. Distell	Bridge	545,479
51-14VC12-F	Los Angeles	165	L.A.	At 5th St. & at 6th St.	—	12/ 8/50	Winston Bros. Co.	Bridges & Pedestrian Undercrossings	1,010,779
51-14VC17-F	Los Angeles	165	L.A.	At Wilshire Blvd.	—	3/27/51	Webb & White	Bridge	352,756
7V168	Los Angeles	165, 205	Pas, L.A., SPas	College St. to Glenarm St.	—	1/30/51	Day Labor	Signs	6,000
51-7VC27	Los Angeles	165, 205	L.A., SPas Pas	College St. to Glenarm St.	—	12/22/50	Electric & Machinery Service, Inc.	Lighting & Signs	51,667
1-14VC103-F	Los Angeles	165	L.A.	At 3rd St.	—	6/10/50	Chas. MacClosky Co.	Bridges	339,020

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length, miles	Contract date	Contractor	Type of work	Allotment
52-7VC10-F	Los Angeles	165	L.A	4th St. to Temple St.	0.6	6/14/51	Webb & White	Grade & Surface	\$710,243
52-7VC12-P	Los Angeles	165, 2	L.A	Temple St. to 3rd St. & Grand Ave. to Los Angeles St.		6/28/51	Eis-Hokin & Galvan, Inc.	Lighting & Signs	114,516
51-7VC17-F	Los Angeles	166	A	Augusta Ave. to 0.1 Mi. Easterly of Rio Hondo	2.3	9/29/50	United Concrete Pipe Corp. & Ralph A. Bell	Grade, Surface, & Structure	1,751,083
51-7VC41-F	Los Angeles	166	A	0.2 Mi. Southeastly of Washington Blvd. to Todd Ave.	1.5	3/ 9/51	United Concrete Pipe Corp., Ralph A. Bell, B. J. Ursprung, T. F. Polich, & Steve Kral		
7V171	Los Angeles	167	LBch	Vicinity of State St.		3/14/51	Day Labor	Grade, Pave, & Structure	1,549,650
7V170	Los Angeles	167	LBch	Vicinity of Willow St.		3/12/51	Day Labor	Pumping & Drainage Installations	39,000
51-7VC49-F	Los Angeles	167	LBch	Rte. 60 to 223d St.		5/31/51	Griffith Co.	Drainage	31,111
51-7VC55	Los Angeles	167	LBch	State St. to 223d St.	2.5	6/28/51	Fischbach & Moore, Inc.	Grade, Pave, & Structures	1,507,323
7V176	Los Angeles	167	Sgt.	Across Los Angeles River				Lighting & Signs	71,937
51-7VC44	Los Angeles	168	A, LBch	Carson St. to Center St.		5/15/51	Day Labor	Bridge Substructure	189,000
1-7VC156-F	Los Angeles	168	C, EMte	Garvey to Valley	3.7	4/24/51	M. S. Mechem & Sons	Base & Surface	167,478
51-7VC10	Los Angeles	168	C	Ranona Freeway Interchange Area	1.4	5/19/50	Vido Kovacevich Co.	Grade, Surface, & Structures	857,989
51-7VC47	Los Angeles	168	C	At California St.		7/26/50	Newberry Electric Corp.	Lighting	10,951
7V175	Los Angeles	168	LBch	Lakewood Blvd. at 23d St.		4/24/51	Paul R. Gardner	Signals & Lighting	11,796
51-14RVC1	Los Angeles	205	L.A	Near Avenue 58		5/21/51	Day Labor	Signals, Lighting, & Channelization	6,000
51-14DC1-P	Los Angeles	PAS 737				9/29/50	Walter Kaucher	Pedestrian Bridge	29,309
51-14DC9-P	Los Angeles	PAS 751		Across San Gabriel River on Orangethorpe Ave.		6/28/51	Oberg & Cook	Bridge	215,000
51-14DC8-P	Los Angeles	PAS 845		Across San Gabriel River on Spring St.		5/ 4/51	Chas. MacClosky Co.	Bridge	200,610
	Los Angeles			Across San Gabriel River on Beverly Blvd.		3/27/51	Chas. MacClosky Co.	Bridge	292,760
51-6TC3-F	Madera	4	B	Various Locations				Minor Contracts & D.L. Projects	22,595
1-6TC20	Madera	4	B, C	1.5 Mi. NW. of Madera to 0.3 Mi. N. of Dry Creek	3.7	8/ 2/50	Guy F. Atkinson Co.	Grade, Pave, & Structure	431,640
				0.5 Mi. N. of Berenda to Califa.	4.1	6/10/50	Guy F. Atkinson Co.	Grade & Pave	463,753

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-14DC5-P	Madera	FAS 962		Across Kaiser River & North Fork of San Joaquin River.		11/20/50	C. C. Gildersleeve	Bridges	\$45,333
	Madera			Various Locations				Minor Contracts & D.L. Projects	450
51-4TC26-F	Marin	1	A	Ignacio to Forbes Overhead	5.5	1/9/51	Granite Const. Co.	Grade, Surface, Structures, & Signals	1,156,467
51-4TC28	Marin	1	SRI	Southerly End of San Rafael Viaduct		2/16/51	S & Q Const. Co.	Pump House & Sump Pump	26,775
	Marin			Various Locations				Minor Contracts & D.L. Projects	18,175
10784	Mpa. Mer.	18	A, I, A	See Merced County					
51-10BC1-F	Mariposa	18	E, F, G, H	Briceburg to Yosemite National Park	17.7	6/28/51	Piombo Const. Co.	Plant Mixed Surfacing	1,442,702
52-10TC1	Mariposa	18	I	Cathay Junction to 5 Mi. Easterly	5.0	6/5/51	Munn & Perkins	Plant Mixed Surfacing	178,408
10775	Mariposa	110	B	Tuolumne Co. Line to Coulterville	9.0	7/1/49	Day Labor	Grade & Surface	40,000
10780	Mpa. Tuo.	110	B, A	See Tuolumne County					
	Mariposa			Various Locations				Minor Contracts & D.L. Projects	925
1782	Mendocino	1	J	At Lane Flat		3/9/51	Day Labor	Replace Culvert	20,650
51-1TC9	Mendocino	1	Wlts	S. City Limits to N. City Limits of Willits	1.6	8/21/50	Harms Bros. & C. M. Syar	Plant Mixed Surfacing	153,448
51-1TC1	Mendocino	56	A	Bacon Gulch to 1/2 Mi. N. of Signal Port Creek	0.8	4/1/50	Arthur B. Siri, Inc.	Grade & Road Mixed Surfacing	108,772
51-1TC2	Mendocino	56	D	At Salmon Creek	1.0	4/1/50	Arthur B. Siri, Inc.	Grade & Surface Bridge Approaches	117,125
52-1TC2	Mendocino	70	A	At Middle Creek		5/16/51	Arthur B. Siri, Inc.	Widen Bridge & Approaches	37,479
1-1DC11	Mendocino	FAS 979		Rte. 16 at Old Hopland to Largo	4.0	6/28/50	John Burman & Sons	Grade, Prime & Seal Coats	89,000
51-1DC1	Mendocino	FAS 982		14 Mi. to 10 Mi. Westerly of Willits	4.0	8/14/50	John Burman & Sons	Grade & Install CMP	108,000
	Mendocino			Various Locations				Minor Contracts & D.L. Projects	32,355
1-10TC61-F	Merced	4	A	Dutchman Creek to Lingard	6.5	6/10/50	Guy F. Atkinson Co.	Grade, Pave, & Structure	850,993

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-10TC16-F	Mer. Sta.	4	D, A	Merced River Bridge to Turlock Overcrossing	5.6	3/19/51	United Concrete Pipe Corp.	Grade & Pavc.	\$749,296
52-10TC3-P	Merced	4	Mer	At "G" St.		6/28/51	L. H. Leonardi Electric Const. Co.	Signals & Lighting	7,311
10784	Mer. Mps.	18	A, A, I	1.6 Mi. W. of Mariposa Co. Line to Cathay Junction	8.6	5/25/51	Day Labor	Seal Coat	7,275
51-10TC12	Merced	32	A	Santa Clara Co. Line to 3.5 Mi. Easterly	3.5	8/30/50	Munn & Perkins	Widen & Surface	150,512
	Merced			Various Locations				Minor Contracts & D.L. Projects	6,050
2179	Modoc	73	A, B	Rte. 28 to Oregon State Line	33.8	6/30/50	Day Labor	Grading	300,000
51-5DC3	Modoc	FAS 513		4 Mi. N. of Lake City to Fort Bidwell	12.5	5/ 9/51	Tyson & Watters	Surfacing	168,000
	Modoc			Various Locations				Minor Contracts & D.L. Projects	225
51-9VC10	Mono.	23	D	0.8 Mi. to 1.6 Mi. N. of McGee Creek	0.8	10/31/50	Conrad Const. Co., Inc.	Grade & Surface	45,663
52-9VC6	Mono.	23	J	Dressler's Corner to 1.1 Mi. N. of Fales Hot Springs	12.0	4/28/51	Oilfields Trucking Co. & Phoenix Const. Co., Inc.	Widen & Surface	50,000
51-9BC1-F	Mono.	23	K	5 Mi. N. of Sonora Junction to Antelope Valley	2.7	6/23/51	R. P. Shea Co.	Grade & Surface	235,945
52-9VC3	Mono.	76	B	5.5 Mi. to 2.9 Mi. S. of Benton Station	2.8	4/ 2/51	Anderson Co.	Grade & Surface	81,687
	Mono.			Various Locations				Minor Contracts & D.L. Projects	2,640
52-5TC2-F	Monterey	2	B	Chualar to Spence Underpass	5.2	4/11/51	Fredrickson & Watson Const. Co.	Grade & Surface	550,733
52-5TC1	Monterey	56	J	Moss Landing to 2 Mi. S. of Watsonville Airport	2.1	4/ 2/51	Leo F. Piazza Paving Co.	Plant Mixed Surfacing	39,729
1-14TC78	Mon. SCR	56	J, Wat	Watsonville Junction to Front St.	0.9	9/29/49	Dan Caputo & Edward Keeble	Grade, Surf., Structure, Signals, & Lighting	515,350
5T24	Mon. SBT	119	A, A	Priest Valley to Lonoak	16.0	1/ 9/51	Day Labor	Oil Treatment	6,500
51-5DC3	Monterey	FAS 593		At Elkhorn Slough		4/ 2/51	Edward Keeble	Grade & Culverts	61,000

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-5DC1-P	Monterey	FAS 661		Rte. 56 to Robinson Canyon Road	5.8	12/15/50	Nevada Constructors, Inc.	Grade & Seal Coat	\$138,100
	Monterey			Various Locations				Minor Contracts & D.L. Projects	15,079
52-4TC1	Napa	6	A	6.5 Mi. to 6.8 Mi. E. of the E. City Limits of Napa	0.3	5/21/51	C. M. Syar	Grade & Seal Coat	29,186
	Napa			Various Locations				Minor Contracts & D.L. Projects	3,810
52-3TC6	Nevada	37	C	Donner Summit to Donner Lake	0.8	6/15/51	Harnus Bros.	Grade & Plant Mixed Surfacing	140,199
	Nevada			Various Locations				Minor Contracts & D.L. Projects	4,600
51-7VC37-F	Orange	43	B	Peralta School to Riverside Co. Line	6.1	2/23/51	A. Teichert & Son, Inc.	Grade, Pave, & Structures	1,112,413
52-7VC11	Orange	176 174, 2	A, F, A	Manchester Ave. at La Palma Ave. and Fullerton Rd. at Imperial Highway		6/ 5/51	C. D. Draucker, Inc.	Signals & Lighting	27,454
51-14VC22-F	Orange	174, 2	SA, C	Broadway to 1st St.	2.8	6/22/51	Winston Bros. Co.	Grade, Pave, & Structures	2,656,257
52-7VC6	Orange	179	A	Stanton Ave. to Pacific Electric Tracks in Garden Grove	3.0	5/24/51	Roland T. Reynolds	Widen & Surface	81,827
52-8VC6	Ora, SB4, Riv	Var	Var	See San Bernardino County					
	Orange			Various Locations				Minor Contracts & D.L. Projects	4,200
51-3TC16	Placer	3	Rsv	Oak Street to Holt Street		4/24/51	Dana R. Tyson Co.	Roadside Development	18,604
	Placer			Various Locations				Minor Contracts & D.L. Projects	8,490
	Plumas			Various Locations				Minor Contracts & D.L. Projects	11,090
52-8VC3	Riverside	19	Riv	Southern Pacific Railroad to Sedgewick Ave.	0.35	4/ 2/51	R. A. Erwin	Widen & Surface	41,186
52-8VC5-F	Riverside	26	C, D	0.6 Mi. W. of Rte. 187 to 1.2 Mi. E. of Whitewater	3.9	5/31/51	Basich Bros. Const. Co., & N. L. Basich & R. L. Basich	Grade, Surface, & Structures	1,124,870
8V38	Riv, SBd.	26	Bau, B, A	See San Bernardino County					
51-8VC13	Riv, SBd.	26	Bau, A, B	See San Bernardino County					

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
52-11VC2	Riverside	26, 64	Ind. F, Coa, Ind	Indio to Avenue 62	9.3	4/ 2/ 51	John J. Swigart Co.	Grade & Surface	\$383,581
52-8VC7-P	Riverside	43	Riv	At Central Ave. Brockton Ave. & at Jurupa St.		6/15/51	Fischbach & Moore, Inc.	Signals & Channelization	29,860
52-11VC5	Riverside	64	H,I,B,C,D	Indio to Black Butte	22.4	5/24/51	James L. Miller & Sons	Plant Mixed Surfacing	173,576
52-8VC4	Riverside	64	K	2 Mi. W. of Hemet to Sanderson Ave.	1.0	5/ 8/ 51	R. A. Erwin	Grade & Surface	58,738
51-8VC8-F	Riverside	77, 78	A, C	1 Mi. N. of Temecula to Antelope Road	7.0	11/27/50	L. A. & R. S. Crow	Grade, Surface, & Structure	666,225
51-11VC5	Riverside	187	A, B	Imperial Co. Line to 3 Mi. Southeast of Mecca	14.8	11/15/50	Griffith Co.	Grade & Road Mixed Surfacing	576,149
51-8DC3-P	Riv, SBd	FAS 693		See San Bernardino County					
52-8VC6	Riv, SBd, Ora	Var	Var	See San Bernardino County					
	Riverside			Various Locations					
3T104	Sacramento	6, 11	Sac	Capitol Ave. at 4th, 9th, & 30th Sts.		6/27/51	Day Labor	Minor Contracts & D.L. Projects	25,392
3T97	Sacramento	11	F, Sac	Suttersville Road E. to Suttersville Road W.	0.2	5/19/50	Day Labor	Signals	10,000
52-14TC4-F	Sacramento	54	C	Across Cosumnes River		6/15/51	Erickson & Co.	Widen & Pave	34,000
51-14TC26	Sacramento	98	A	Across American River		3/21/51	Lord & Bishop	Bridge	203,350
3T106	Sacramento	98	A	Sacramento City Limit to Intersection Fulton & Fair-oaks Bvds.	1.6	6/29/51	Day Labor	Widen	131,613
				American River near Elvas		7/20/50	Lord & Bishop	Widen	68,386
51-14TC11-F	Sacramento	98	B	At "H" St. Subway		6/29/51	Day Labor	Bridge Substructure	652,306
3T105	Sacramento	98	Sac	Various Locations				Widen	65,000
	Sacramento								
1-5TC16-F	San Benito	2	B, A	Chittenden Rd. to 1 Mi. N. of San Benito River	2.3	5/19/50	Granite Const. Co.	Minor Contracts & D.L. Projects	14,840
5T24	SBt, Mon	119	A, A	See Monterey County				Grade, Surface, & Structure	481,557
51-14TC25-F	SBt, SCL	119	F, A	At Pajaro River	0.4	2/ 7/ 51	Fredrickson & Watson Const. Co.	Bridge & Approaches	104,857

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-5TC3-F	San Benito	119, 22	Hst, B, F	Hollister to Santa Clara Co. Line	9.4	6/14/50	Fredrickson & Watson Const. Co.	Grade & Plant Mixed Surfacing	\$465,280
51-5DC4-P	San Benito	FAS 670		Mansfield Road to Lone Tree Road	1.6	6/23/51	Granite Const. Co.	Grade & Penetration Treatment	25,168
	San Benito			Various Locations				Minor Contracts & D.L. Contracts	5,175
51-14VC9-P	San Bernardino	9	SBd	At "T" St.		11/10/50	K. B. Nicholas	Overhead & Approaches	461,941
8V38	SBd, Riv	26	B, A, Bau	2.3 Mi. E. of Redlands to Beaumont	0.6	3/2/50	Day Labor	Signs & Stripes	11,000
51-8VC13	SBd, Riv	26	B, A, Bau	1.5 Mi. NW. of Riverside Co. Line to Beaumont		4/10/51	Paul R. Gardner	Lighting & Signs	24,281
52-8VC8	San Bernardino	31	Col	Rte. 26 to Grant Ave.	1.3	6/23/51	Hubbs Equipment Co.	Widen & Surface	99,873
51-8VC12-P	San Bernardino	31, 190	SBd	At Mt. Vernon-El Cajon Blvd. & at "T" St.		2/20/51	Fischbach & Moore of Calif., Inc.	Signals & Lighting	35,341
8V39	San Bernardino	190	E	Igo to 2.2 Mi. Easterly	2.2	5/24/51	Day Labor	Widen & Surface	30,000
8V37	San Bernardino	207	A	Long Point to 1.2 Mi. W. of Running Springs		7/1/49	Day Labor	Erosion Control	7,000
1-8VC44-F	San Bernardino	207, 43	A, C	1.3 Mi. W. of Running Springs to Running Springs	1.7	4/29/50	Hess Construction Co.	Grade, Surface, & Structures	441,300
51-8DC3-P	SBd, Riv	FAS 693		Los Angeles Co. Line to Rte. 19	11.7	3/29/51	E. L. Yeager Co.	Grade, Surface, & Structure	424,000
52-8VC6	SBd, Riv, Ora	Var	Var	At Various Locations	45.2	6/20/51	George Herz & Co.	Seal Coat	89,223
	San Bernardino			Various Locations				Minor Contracts & D.L. Projects	20,381
51-11VC13-F	San Diego	2	B	0.7 Mi. S. of San Marcos Creek to 2.2 Mi. S. of Carlsbad	3.2	6/28/51	Cox Bros. Const. Co.	Grade, Surface & Structures	689,337
51-11VC10-F	San Diego	2	G, ChV	Elm Ave. to "G" St.	3.8	3/8/51	Griffith Co.	Grade, Surface & Structures	1,325,314
11V60	San Diego	2	G, ChV, NatC	Elm Ave. to 18th St.		5/25/51	Day Labor	Signs & Stripes	5,260
11V58	San Diego	2	NatC	7th St. to 16th St.		4/19/50	Day Labor	Signal & Track Work	34,900
51-11VC12	San Diego	2	NatC, ChV	At 18th St., 24th St. & "E" St.		6/15/51	California Electric Works	Lighting	3,958

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-11VC1-F	San Diego	2	Oen	0.25 Mi. S. of Mission Ave. to San Luis Rey River	1.0	3/23/51	Cox Bros. Const. Co.	Grade, Pave, & Structures	\$1,030,921
51-14VC23-F	San Diego	2	Oen, C	13 Mi. S. of San Luis Rey River to Camp Pendleton	0.5	6/18/51	Charles MacClosky Co.	Bridge & Approaches	1,051,740
51-14VC15-Y	San Diego	2	SD	Across San Diego River		2/26/51	Guy F. Atkinson Co.	Bridge	371,647
51-11VC14-P	San Diego	2	SD	"E" St. to Date St.		6/25/51	Eis-Hokin & Galvan, Inc.	Signals, Lighting, & Channelization	40,896
52-11VC6	San Diego	2	SD, A, B, Oen, C	Balboa Ave. to Las Flores	5.2	6/ 6/51	Griffith Co.	Plant Mixed Surfacing	114,323
11V59	San Diego	12	D	Prison Camp 40		8/16/50	Day Labor	Upkeep Cost	15,000
51-14VC10	San Diego	12	D	Wildwood Glen to Descanso Junction	0.8	11/18/50	Clyde W. Wood & Sons, Inc.	Grade, Surface, & Structure	394,980
1-11VC62	San Diego	12	D	The Willows to 4 Mi. E.	3.9	6/25/50	Clyde W. Wood & Sons, Inc.	Grade & Pave	470,999
52-11VC1	San Diego	12	Eoj, B, C	Chambers St. to 2nd St.	2.0	4/ 2/51	R. E. Hazard Contr. Co.	Grade & Pave	207,130
52-14VC1	San Diego	195	B	At Hancha Creek		6/21/51	Einer Bros., Inc.	Bridge	45,486
51-11DC2-P	San Diego	FAS 729		Rte. 77 to County Road Survey 944	3.6	4/24/51	Ralph A. Bell	Grade	219,278
51-11DC1-P	San Diego	FAS 732		Cabrillo Freeway to Fairmount Ave. Extension	3.7	7/21/50	Griffith Co.	Grade & Surface	812,987
	San Diego			Various Locations				Minor Contracts & D.L. Projects	12,805
4T103	San Francisco	2	S.F.	Sta. 36 to Bayshore Blvd.		3/29/48	Day Labor	Reconstruct	96,000
51-14T1C30	San Francisco	2	S.F.	Across Presidio		6/ 2/51	Eaton & Smith	Repair Bridge	45,517
1-4T1C82-F	San Francisco	68	S.F.	Augusta St. to 25th St.	1.3	5/11/49	Guy F. Atkinson Co. and Charles L. Harney, Inc.	Grade, Surface, Structures & Signals	3,135,347
4T139	San Francisco	68	S.F.	At 25th & Vermont Sts.		10/11/50	Day Labor	Signals	8,000
4T138	San Francisco	68	S.F.	Augusta St. to 25th St.	1.3	9/21/50	Day Labor	Signs & Stripes	16,000
15T7	S.F., Ala.	68, 5	S.F., Oak	San Francisco-Oakland Bay Bridge		6/30/50	Day Labor	Operation, Maintenance, & Insurance	1,500,000
51-15TC2	San Francisco	68	S.F.	San Francisco-Oakland Bay Bridge		4/ 2/51	California Steel Products Co.	Painting Scaffold Tracks	22,711
4T65	San Francisco	68	S.F.	Marin St. to Waterloo Road		4/27/51	Day Labor	Grade & Pave	96,000

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length, miles	Contract date	Contractor	Type of work	Allotment
51-14TC31-F	San Francisco	68, 2	S, F	18th St. to Bryant St.	0.7	6/22/51	Chas. Harney	Bridge	\$3,538,309
	San Francisco			Various Locations				Minor Contracts & D.L. Projects	6,800
51-10DC3-P	San Joaquin	FAS 903		Rte. 4 to Jack Tone Road	5.3	10/11/50	M. J. B. Const. Co.	Grade & Surface	197,175
	San Joaquin			Various Locations				Minor Contracts & D.L. Projects	19,552
1-5VC35-F	San Luis Obispo	2	B	Atascadero to 1 Mi. S. of Templeton	4.1	4/21/50	M. J. B. Const. Co.	Grade, Surface, & Structures	699,252
52-5VC1	San Luis Obispo	2	B	1 Mi. S. of Templeton to Paso Robles	6.0	4/25/51	Madonna Const. Co.	Grade	697,973
51-5DC2-P	San Luis Obispo	FAS 676		Creston-Highland Road to 0.85 Mi. E. of Rte. 57	4.3	3/ 7/51	Fred McKinley	Grade & Structure	139,999
	San Luis Obispo			Various Locations				Minor Contracts & D.L. Projects	11,090
51-4TC31-P	San Mateo	2	D/C	At San Jose Ave. & at Market St.		4/11/51	R. Flatland	Signals & Channelization	62,354
51-4TC36	San Mateo	2	SBr	Angus Ave. to Sylvan Ave.		6/4/51	Leslie S. Mayne	Remove Trees	4,858
52-4TC3	San Mateo	56	C	0.2 Mi. N. of Lobitos to 0.3 Mi. N. of Canada Verde Creek.	3.4	5/ 4/51	S. A. E. Co.	Grade & Surface	397,795
51-4TC24	San Mateo	68	A, SSF	S. City Limits of San Francisco to N. City Limits of South San Francisco	3.2	12/20/50	Chas. L. Harney, Inc.	Widen & Surface	379,919
	San Mateo			Various Locations				Minor Contracts & D.L. Projects	21,020
1-5VC36	Santa Barbara	2	E, D	0.5 Mi. N. of Las Cruces to 1 Mi. N. of Summit	3.1	5/11/50	Granite Const. Co.	Grade & Plant Mixed Surfacing	709,417
51-5VC10-F	Santa Barbara	2, 56	E, A	Gaviota Gorge to 0.5 Mi. N. of Las Cruces	2.0	3/ 6/51	Granite Const. Co.	Grade & Plant Mixed Surfacing	674,206
52-5VC3	Santa Barbara	2	E	At Gaviota Gorge	0.1	6/18/51	Rhoades-Shofner Const. Co.	Tunnel & Approaches	500,000
51-5VC9-F	Santa Barbara	56	A, B	San Julian Ranch to 1.8 Mi. N. of Ytias Creek	3.2	1/22/51	Valley Paving & Const. Co.	Grade & Plant Mixed Surfacing	265,938
51-5VC4-Y	Santa Barbara	80	B	Tequepis Canyon to 1.5 Mi. E. of Santa Ynez River Bridge	3.3	8/ 4/50	Kirst & Sons	Grade & Plant Mixed Surfacing	367,789
51-5VC8-Y	Santa Barbara	80	B	Hot Springs Canyon to Tequepis Canyon	4.0	9/27/50	J. A. Payton	Grade & Plant Mixed Surfacing	583,491
	Santa Barbara			Various Locations				Minor Contracts & D.L. Projects	650

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-4TC8	Santa Clara	2	A, MVw	Palo Alto to Sunnysale	5.9	7/26/50	F. B. Marks, Jr.	Widen & Surface	\$397,561
51-4TC3	Santa Clara	5	C	3.7 Mi. N. of Santa Cruz Co. Line to 1.1 Mi. S. of Rte. 42	1.75	5/18/50	Guy F. Atkinson Co.	Grade & Plant Mixed Surfacing	1,507,026
51-4TC34-P	Santa Clara	5, 42	LGs	At Main St. & Santa Cruz Ave.		4/20/51	Howard Electric Co.	Signals	10,952
51-14TC25-F	SC, SBt.	119	A, F	See San Benito County					
51-4DC5	Santa Clara	FAS 1, 016		Bayshore Highway to Gordon Ave.	3.1	6/22/51	Edward Keeble	Widen & Surface	298,000
	Santa Clara			Various Locations				Minor Contracts & D.L. Projects	24,775
51-4TC18	Santa Cruz	56	D, E, SCR	Rob Roy Junction to Morrissey Ave.	7.6	10/10/50	Huetting, Schromm, & Bennett	Roadside Planting	16,145
4T135	Santa Cruz	56	E, SCR	Rob Roy Junction to Morrissey Ave.		8/10/50	Day Labor	Riprap & Drains	9,300
1-14TC78	SCR, Mon	56	Wat, J	See Monterey County					
	Santa Cruz			Various Locations				Minor Contracts & D.L. Projects	3,350
1-2TC40	Shasta	3	A, Rdg	Anderson to Redding	9.8	5/24/50	Fredrickson & Watson Const. Co.	Grade, Surface, & Structures	643,901
51-2TC9	Shasta	28	C	At Hatchet Creek Line Change	1.6	10/ 4/50	Eaton & Smith	Grade & Surface	355,023
1-14DC72	Shasta	FAS 1,074		Across Sacramento River, 1½ Mi. N. of Anderson		6/13/50	M. A. Jenkins & R. E. Herdel	Steel & RC Bridge	284,000
	Shasta			Various Locations				Minor Contracts & D.L. Projects	5,060
52-3TC7	Sierra	25	A	1.4 Mi. E. Yuba Co. Line to 1.5 Mi. W. of N. Yuba River	0.8	5/28/51	Richer Bros.	Grade, Surface, & Structure	344,985
1-3TC67	Sie, Yub.	25	A, A	See Yuba County					
51-3BC2	Sierra	25	A, B	6.3 Mi. E. of North Yuba Riv. Br. to 4.5 Mi. W. of Sierra City	1.9	6/30/51	J. Henry Harris	Grade & Penetration Treatment	228,351
51-14BC2	Sierra	25	B	Across Salmon Creek		6/21/51	Lefever & Bing	Repair	32,012
	Sierra			Various Locations				Minor Contracts & D.L. Projects	5,450

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length, miles	Contract date	Contractor	Type of work	Allotment
51-2TC2-F	Siskiyou	3	A	Spring Hill to Weed	8.0	4/12/50	Rand Const. Co., Inc.	Grade & Plant Mixed Surfacing	\$514,373
2780	Siskiyou	46	B	Mile 6.68 to Mile 10.35	3.67	7/17/50	Day Labor	Widen & Surface	20,000
2781	Siskiyou	46	B	Near Happy Camp		9/13/50	Day Labor	Grade, Penetration, Treatment, & Seal Coat	6,850
52-14TC2	Siskiyou	46	B	Across Thompson Creek		6/15/51	E. H. Peterson & Son	Bridge & Approaches	40,000
	Siskiyou			Various Locations				Minor Contracts & D.L. Projects	11,900
51-10TC15-F	Solano	7	C, Vac, D	Alamo Creek to Ulatis Creek	1.7	12/26/50	Fredrickson Bros.	Grade, Pave, & Structures	871,835
51-10RTC2	Solano	7	G, C, D, I	Vallejo to Davis (Portions)	0.8	5/24/51	Fredrickson Bros.	Frontage Road & Fence	86,829
1-10TC62-F	Solano	7, 8	H, B, A	Cordelia Underpass to Ledgewood Creek	6.0	6/14/50	Parish Bros.	Grade, Surface, & Structures	1,232,080
52-10TC2	Solano	74	A	At Nebraska St.		6/ 5/51	L. H. Leonardi Electric Const. Co.	Signals & Lighting	6,317
1472	Solano	99	A	At East Landing of Cache Slough Ferry		3/28/51	Day Labor	Ramp	21,000
10782	Solano	99	A	At Cache Slough		5/10/51	Day Labor	Repair Ferry	5,600
	Solano			Various Locations				Minor Contracts & D.L. Projects	17,460
51-4TC5	Sonoma	1	A	Cloverdale to Healdsburg	4.9	6/ 8/50	J. R. Armstrong	Grade & Plant Mixed Surfacing	172,143
47144	Son, CC	1, 104, 75	A, B, C W, C, B	Cloverdale to Santa Rosa, Sebastopol to Cotati, & Walnut Creek to Concord (Port)	13.3	1/ 5/51	Day Labor	Subsealing	55,000
51-4TC7	Sonoma	1, 51	B, Son	Healdsburg to Santa Rosa & at Sonoma	6.4	7/ 6/50	A. G. Raich Co.	Grade & Surface	175,405
51-4TC37	Sonoma	1	E, SRo	Steele Lane to Barham Ave.		6/28/51	Karl F. Stotling	Signals & Lighting	15,750
52-4TC6-P	Sonoma	1	Hlog	At North St. & at Matheson St.		6/20/51	L. H. Leonardi Electric Const. Co.	Signals	10,135
1-4TC92	Sonoma	8	A	Petaluma Creek to Tolay Creek	3.9	9/15/49	Piombo Const. Co.	Grade & Plant Mixed Surfacing	643,500

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length, miles	Contract date	Contractor	Type of work	Allotment
51-4TC15	Sonoma	56	C, D, E	Jenner to Mendocino Co. Line	1.0	10/11/50	Huntington Bros.	Grade & Bit. Surf. Treatment	\$133,485
52-4TC8	Sonoma	56	E	Stewart's Point to Gualala	2.7	6/29/51	Huntington Bros.	Grade & Bit. Surf. Treatment	100,000
52-4TC4	Sonoma	104	A	Sheephouse Creek		6/4/51	Wheeler Const. Co.	Culvert	25,000
51-4TC19	Sonoma	208	A	Sears Point to Solano Co. Line	2.0	10/11/50	A. G. Ralsch Co.	Shoulders & Seal Coat	22,393
51-4DC3-P	Sonoma	FAS 878		1.8 to 3.0 Mi. NW. of Rte. 8	1.8	8/18/50	Harold Smith	Grade & Seal Coat	123,000
	Sonoma			Various Locations				Minor Contracts & D.L. Projects	28,110
51-10TC16-F	Sta, Mor.	4	A, D	See Merced County					
51-10TC17	Stanislaus	110	A, B	10.5 Mi. to 5.0 Mi. W. of Modesto	3.5	3/27/51	M. J. Ruddy & Son.	Plant Mixed Surfacing	129,572
51-10DC4	Stanislaus	FAS 904		Rte. 66 to Valley Home	3.9	5/24/51	United Concrete Pipe Corp.	Widen & Surface	75,000
	Stanislaus			Various Locations				Minor Contracts & D.L. Projects	8,190
52-3TC3	Sutter	15	A, B	Meridian to 3 Mi. W. of Yuba City	7.1	5/1/51	Rice Bros., Inc.	Resurface	86,518
	Sutter			Various Locations				Minor Contracts & D.L. Projects	965
51-14TC10	Teh, But.	3	A, D	See Butte County					
	Tehama			Various Locations					
2783	Trinity	29	A	At Salt Creek		5/25/51	Day Labor	Minor Contracts & D.L. Projects	1,850
	Trinity			Various Locations				Reconstruct Bridge & Approaches	11,000
51-6VC5-F	Tulare	4, 134	B, Tul, F, B	Tulare Airport to Tagus	7.8	10/20/50	United Concrete Pipe Corp.	Minor Contracts & D.L. Projects	5,190
								Grade, Pave, & Structures	970,503

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-6VC9-F	Tulare	4	E	1 Mi. N. of Goshen to Traver	6.3	1/ 4/51	Griffith Co.	Grade, Pavc, & Structure	\$713,146
51-14BC4-F	Tulare	10	C	At Deep Creek		6/28/51	Rex B. Sawyer	Bridge	56,452
51-6VC8	Tulare	134	B	At Proposed Rte. 134 Overcrossing		11/21/50	L. H. Leonard Electric Const. Co.	Lighting	12,043
	Tulare			Various Locations				Minor Contracts & D.L. Projects	6,250
51-10TC18-F	Tuolumne	13	B, Sra	Jamestown to Sonora	3.3	6/ 8/51	Harnis Bros.	Grade, Surface, & Widen Bridge	637,733
10T79	Tuolumne	40	B	Big Oak Flat to Chinese Camp	0.4	6/30/50	Day Labor	Grade & Surface	15,000
10T80	Tuo, Mpa	110	A, B	Stanislaus Co. Line to Coulterville	3.0	7/30/50	Day Labor	Grade & Surface	25,000
10DC10-P	Tuolumne	FAS 919		Rte. 13 to Stanislaus Co. Line	12.6	3/ 8/50	Chittenden & Chittenden	Grade & Surface	178,000
	Tuolumne			Various Locations				Minor Contracts & D.L. Projects	12,565
51-7VC13-F	Ven, LA	2	A, C	See Los Angeles County					
14V2	Ventura	2	B	Southern Pacific Railroad Crossing in Camarillo		9/21/49	Southern Pacific Railroad Co.	Signals	13,701
51-7VC36	Ventura	2	C	Santa Clara River Bridge Through Montalvo		6/28/51	Electric & Machinery Service	Lighting	8,332
51-7VC53	Ventura	2	C	Santa Clara River Bridge Through Montalvo	1.3	5/23/51	Fredericksen & Kasler	Grade & Surface	395,645
51-7VC43	Ven, Ker, LA	2, 4	FA, A, D, J	See Los Angeles County					
51-14VC8	Ventura	9	A, B, C	Various Locations		11/ 9/50	Norman I. Fadel	Widen Bridges	97,044
51-7VC40-P	Ventura	138	Ven	At Main St., Park Row Ave., Center St., & Ramona Ave.		2/19/51	Clinton Electric Corp.	Signals	13,784
	Ventura			Various Locations				Minor Contracts & D.L. Projects	7,005

INCOMPLETE CONTRACTS—Continued

Contract number	County	Route	Section	Location	Length miles	Contract date	Contractor	Type of work	Allotment
51-14TC13-F	Yolo	6	C	Over Yolo Causeway Off Ramp		8/18/50	Charles MacClosky & Harms Bros.	Bridge	\$110,600
51-14TC21-F	Yolo	6	C	Over Jefferson Blvd.	0.2	11/ 8/50	Charles MacClosky & Harms Bros.	Grade, Surface, & Structure	82,100
51-14TC23-F	Yolo	6	C	Yolo Causeway to Tower Bridge	0.8	12/14/50	A. Teichert & Son, Inc.	Bridges, Ramps, & Detours	410,687
51-3TC6-F	Yolo	6, 99	C, B	Intersection Rtes. 6 & 99	0.5	6/27/50	Charles MacClosky & Harms Bros.	Grade, Surface, & Structures	268,718
52-3TC4	Yolo	50	Wd, E	Woodland to Yolo Bypass	5.1	5/ 9/51	A. Teichert & Son	Plant Mixed Surfacing	140,777
	Yolo			Various Locations				Minor Contracts & D.L. Projects	4,350
52-3TC8	Yuba	3	A	Wheatland to Morrison's Crossing	2.4	6/ 7/51	Claude C. Wood Co.	Surface Shoulders	7,752
3794	Yuba	3	B, Mvl	Yuba River Bridge		11/18/49	Day Labor	Repair	8,000
1-3TC67	Yub, Sie	25	A, A	¼ Mi. W. to 2.6 Mi. E. of Yuba-Sierra Co. Line	2.1	11/ 9/49	Louis Biasotti & Son	Grade, Bit. Surf. Tr., & Seal Coat	296,905
52-3TC2	Yuba	87	A	Simmerly Slough to 0.4 Mi. S of Butte Co. Line	8.4	4/25/51	Rice Bros., Inc.	Base & Surface	247,366

APPENDIX D

AVERAGE CONTRACT PRICES

1912 to 1951

AVERAGE CONTRACT PRICES,⁴ 1912 TO 1951

Year (beginning July 1, 1920, costs are for fiscal years ending June 30 of year shown)	Grading ² (per cu. yd.)	Class "A" (6 sacks per cu. yd.) Portland cement pavement, (per cu. yd.)	Class "B" ³ (5 sacks per cu. yd.) Portland cement pavement, (per cu. yd.)	Asphalt concrete (per ton)	Plant mixed surfacing (per ton)	Crusher run base (per ton)	Portland cement concrete structures (per cubic yard)	Bar reinforcing steel (per lb.)	Structural steel (per lb.)
1912	\$0.39		\$5.82	\$6.04					
1913	0.46		5.91	6.46					
1914	0.51		6.75	6.71					
1915	0.45		6.25	6.80					
1916	0.72		6.37						
1917	0.73			8.52					
1918	0.78	\$8.03							
1919	0.68	13.08							
1920	1.10	12.98		9.07					
1921	1.10	17.95							
1922	0.94	17.34		9.40					
1923	0.71	14.20		7.92					
1924	0.74	13.18		8.10					
1925	0.75	13.40		7.27					
1926	0.59	10.85		6.43					
1927	0.44	10.58		5.13					
1928	0.50	10.74		5.68					
1929	0.56	10.23		4.70					
1930	0.45	10.23		4.52					
1931	0.42	8.60		4.46					
1932	0.32	8.42		3.74					
1933	0.28	7.17		3.17					
1934	0.23	5.04		2.72					
1935	0.27	7.33		3.17					
1936	0.29	8.00		3.37					
1937	0.42	8.52	7.44	3.36					
1938	0.36	7.72	7.50	3.51					
1939	0.29	8.00	7.33	2.84					
1940	0.29	7.58	6.88	2.94					
1941	0.22	7.44	7.68	2.97	\$2.19	\$1.54	\$18.33	\$0.040	\$0.083
1942	0.26		7.54	3.18	2.84	2.31	23.31	0.053	0.107
1943	0.35		9.62	4.16	4.02	2.81	29.48	0.073	0.103
1944	0.42		11.48	4.76	3.71	2.26	31.76	0.080	0.080
1945	0.50		10.46	4.50	4.10	2.45	31.99	0.054	0.132
1946	0.51		10.90	4.88	4.20	2.42	37.20	0.059	0.102
1947	0.51		9.48	4.68	4.00	2.45	37.38	0.060	0.099
1948	0.46		12.38	5.38	4.32	2.42	48.44	0.080	0.138
1949	0.55		13.04	5.38	4.30	2.43	49.86	0.092	0.126
1950	0.49		12.28	4.64	4.67	2.67	48.67	0.096	0.117
1951	0.40		11.11	3.75	4.26	2.25	43.45	0.079	0.094
1951	0.49		12.21	5.00	4.34	2.62	47.22	0.102	0.150

¹ Only a 6-month period, January 1, 1920, to June 30, 1920.² Includes all earthwork to 1924. Does not include structure excavation since 1924. Roadway excavation only since 1939.³ 1:2 1/2:5 mixture used 1912 to 1916.⁴ Weighted averages.

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